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ABSTRACT

The purpose of this workshop, held June 8, 1971, was to develop guidelines for planning career development programs for Grades K-12. Seven persons from various universities throughout the United States presented papers. The presenters, their positions, and their topics were: (1) Kenneth E. Hoeltzel, Assistant Professor of Education at State University of New York, "Change and Introduction of Career Development Innovations in the School," (2) Kenneth B. Hoyt, Professor of Education at the University of Maryland, "The World of Work: A Component in Career Development Programs," (3) Lorraine S. Hansen of the University of Minnesota, "Identifying, Organizing, and Using Resources in a Career Development Program," (4) George E. Leonard, Project Director at Wayne State University, "Career Guidance for Inner-City Youth in Action: The Developmental Career Guidance Project," (5) Harry N. Drier, Guidance Consultant for Wisconsin Public Schools, Implementing Career Development Programs in Senior High Schools," (6) Juliet V. Miller, University of Michigan, "Career Guidance Methods," and (7) Robert L. Darcy, Colorado State University, "Introduction to the Economics Component." (BH)

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Papers Presented at the Workshop on the Development of Guidelines for Planning Career Development Programs K-12 in Ohio

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Change and Introduction of Career Development Innovations in the School

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Paper presented at the Workshop on the
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Imperial House North - Columbus, Ohio
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Introduction and Background

Times are-a-changin'. Technology is changing the world. Transportation, communication, automation, even methods of war all have undergone drastic change in the past few decades. Although the automobile, the telephone, the computer, the spacecraft and television all underwent extensive periods of uncertainty, they nevertheless contributed to extensive world changes and the manner in which people behave and live. Rate of change is also speeding up. While it took 30 years for the development of photography, it took only five years for the development of the transistor.

Two areas which have had the reputation for resisting change are education and religion. Blanke(1) has said that "the educational establishment has long been known as an element of our culture unlikely to suddenly and dramatically shift its direction". Several writers have blamed the bureaucratic structure for the status quo situation in education since it is very difficult to instigate change from the lower end of the hierarchy. If the top is not innovative, the institution tends to stablize. Often, in a system such as this, if a teacher does get excited enough to stir up some action regarding a major change in policy, he is replaced since this "subversion" threatens the security of the authority figure. The reason for dismissal, then, is usually given to the public as "he could not fit into this school's philosophy," (whatever that might be).

In order for those on the lower levels of the educational hierarchy i.e. (teachers) to be innovative, they need to be free to express and try out new techniques and methods. In some schools, basic policy hinders this. While the administrator can "drop in" on the teacher at any time to observe a class, the administrator's door is jealously guarded by a secretary. In such an atmosphere, the teacher soon sees where he stands and like sheep, does not venture outside the expected circle of his responsibility even though there are no visible "ropes" to limit him. In the teachers' room, he grumbles and says "someone should do something about it" but someone is not defined and no one does anything about it.

Teachers can also retain the status quo and resist change. When an innovative administrator determines new policy, teachers are quick to remind each other "this is not the way we have done it in the past." Whenever a student teacher practices in the school, the older faculty are quick to point out that the creative learning experience that the student teacher is attempting is not really new. In fact, it has been tried several times and it failed so it would probably be better if they would stick to the standard lesson plans.

Even the public resists change. When the Columbus City School Report was being drawn up several years ago, I attended several of the public school meetings. Parents were verbally resisting all sorts of change in the city schools. Bussing, modern math, modern science, moving a kindergarten room and the grouping of two special education classes were some of the topics of controversy. Finally, when a mother stood up and said, "Let's go back to the McGuffey Reader," the audience applauded. It seems as though the insecure feeling created by changing the present causes a regression to the past.

With some of these problems at the local levels, it is no wonder that change is resisted generally in education. In the 1940-1950 period, Paul Mort(9) performed over 100 studies emphasizing the relative slowness of educational change. He found that the average school took 50 years to move an innovation from the discovery phase to final adoption. In 1964 Carlson(4) found that it took only five years to have modern math 90% adopted by 43 schools in Allegheny County, Pennsylvania so it appears that educational change is speeding up. Everett Rogers(13) established a continum based upon the time necessary for an innovation to move from the conceptual state to the implementation stage.

Innovators	2.5%	Those individuals identified as being venturesome and willing to take a risk.
Early adopters	13.5%	Those people characterized as respected individuals with high social status and influence among their peers.
Early majority	34%	Those people characterized as deliberate individuals who are willing to consider an innovation only after others have adopted it.
Later majority	34%	Those individuals characterized as being skeptical and who need overwhelming pressure from peers before adoption occurs.
Laggards	16%	Those individuals characterized as traditionalists who are in the lowest social status of influence.

Fortunately, things are not all this gloomy in education today. Head Start, VISTA, team teaching, modular scheduling, open classrooms, open curricula, and non-graded classrooms are recent educational examples to meet the pressing needs of society.

The Federal Government and Federal programs are influencing the change process by producing new agencies for change (e.g., nine new Research and Development Centers) and by injecting new strategies and styles for change into the educational community (Dershimer,(5) 1966). State departments of education are influencing change by the ways in which they reimburse schools for program development such as the new method of distributing Title III funds to school guidance programs which are felt to contain innovative practices.

Approaches to change

Shertzer and Stone(4)mention eight steps to secure change:

1. Establish a commitment to change.
2. Determine the most pressing needs.
3. Study the situation to determine the constellation of forces that desire to maintain present practices (seek information on the resistors)
4. Clarify the present status and present the ideal.
5. Gain administrative support.
6. Involve the staff in change.
7. Acquaint the community with the reasons and necessities for change.
8. Plan for future evaluation.

As these approaches evolve, there seem to be five stages that appear: The first one is the "no one in his right mind would do that" stage. This is the almost total resistance that appears when the innovators begin work. The second stage is the "identification" stage where pros and cons begin to take sides. The early adopters now have joined the innovators. The third stage is the "conflict and showdown" stage. The early majority and some of the later majority are battling it out with the sides pretty even. The "after the battle" stage shows the supporters of change in power and everyone is on board except the laggards. When the laggards finally swing over, the fifth stage appears, the "anyone in his right mind wouldn't do that" stage. This is the reversal of stage one and we now have the change itself becoming the resistor.

In a lighter vein, you might think through these stages regarding the mini-skirt. From early conception, the battle was on with a lot of resistance. Of course, this fad never reached stage five since there are still laggards. With reference to this, suddenness of change often determines which side wins. The mini was pretty gradual and the hemline inched its way up over a period of years. When the new change agent, the midi, appeared, the sudden drop was too drastic and the midi failed. This change never got past the "identification" stage. The most recent skirt length seems to be a kneecap length but the mini is still going to offer resistance.

Guba and Stufflebeam(6)have pointed out that the approach differs according to how large the change is and how high the level of understanding. They define four change types:

1. Metamorphic change--large changes; high level of understanding. This type of change is very hard to implement since it must almost overthrow the system. It may be ideal but will meet with much resistance.
2. Homeostatic change--high level of understanding; small changes. This is the most prevelant in education and it helps keep the balance. It would be the type of gradual change based on priorities after an evaluation.
3. Incremental change--low understanding; small changes. Incremental change is the trial and error method of changing. There are no long-range goals or objectives in mind. A very popular educational maneuver is instituting change for the sake of changing. The old is bad so replace it with something else (without examining alternatives).
4. Neomobilistic change--low understanding; large changes. Neomobilistic change is created by something of a crisis nature. It is what is being demanded by the rioters in our cities and the protestors on our campuses. Technological breakthroughs also bring about change of this type.

Obstacles to change

Several obstacles or barriers to educational change have been delineated.

Carlson(3)lists three primary barriers to change:

1. The absence of a change agent
2. A weak knowledge base
3. "Domestication" of the public schools

Rogers(13)mentions numerous factors which influence the rate of adoption of a change. These included:

1. Whether a crisis exists
2. The compatibility of the innovation with existing policy
3. The complexity of the innovation
4. The divisibility of the innovation
5. The communicability of the innovation

Rober, Walz and Smith (12) list some change problems assoicated with program development:

1. Administrative resistance to plans
2. Changing a program by attempting to imitate another program
3. Program strength dependent only upon the strength of the instigator (What if he leaves?)
4. Lack of coordination of staff
5. Evaluation problems (often the availability evaluative instruments determine what will be evaluated)

Brickell (2) has drawn up a list of obstacles which are most comprehensive.

Magnitude. How much of the total school program will be affected by the innovation?

Completeness. Is the innovation as it presently stands complete or will it necessitate later refinement?

Complexity. Will the innovation require additional changes in other areas?

Convenience. Is the innovation simplistic as well as convenient?

Flexibility. Must one explicitly follow the innovation procedures to guarantee success or can there be flexibility?

Distinctiveness. Will the innovation cause any differences from what existed before?

Replicability. Is the innovation of such a nature that it cannot be duplicated?

Interaction with Other Programs. Can the innovation stand alone, or does it require other institutional support? Are other departments or groups performing compatible functions?

Readiness. Can the innovation be immediately applied or are further developments necessary?

Cost. Are the costs of instituting the innovation of such a nature that prohibit its use?

Content. Is the innovation similar to what existed, or is it totally different?

Equipment and Materials. Are the materials to be used in the innovation easily available?

Time. How much time does the innovation require?

Space. What space requirements are needed?

Formal Rule. Does the innovation require changes in school rules?

Training. Does the innovation require special training. Does training limit the number of individuals who can use the innovation?

Staff. Does the faculty and staff favor the innovation?

Students. Do the students view the need for change, and if so, do they see the innovation selected as desirable rather than a waste of time?

Social setting. Does the social setting permit the innovation to be fully employed?

Community. Does the innovation violate written or unwritten rules of the community?

Administration. Does the principal's attitude encourage innovativeness? Superintendent's? Central Office's?

A study on the implementation of change

In 1969-1970, this writer performed a study to ascertain to what extent guidance counselors were able to implement innovative ideas that they learned during a summer vocational guidance workshop (Hoeltzel, 7,8).

During the first morning of each of two seminars, a Vocational Guidance Program Rating Form was administered to a total of twenty-eight practicing counselors. This rating form was based upon the Guidelines for the Implementation of the American School Counselor Association Standards. The purpose of this instrument was to determine how counselors perceived their present vocational guidance program. Through the use of a five-point Likert-type rating scale, fifty professional responsibility statements in ten guidance areas were rated on how they optimally should be implemented and on how they were being carried out in the participants' schools.

Using these differences between their ideal ratings and their real ratings as guidelines, counselors were asked to list under any and as many of the fifty responsibility statements as they wished, tasks which they felt they could implement during the 1969-1970 school year as a result of what they learned at the seminar. On the final day of the seminar, counselors turned in their lists of planned tasks to me. The twenty-eight counselors chose 266 tasks which they planned to implement.

Nine months later, I visited each of the twenty-seven Ohio schools in which the participants counseled. At the interview which ensued, counselors were asked to what extent they had been able to carry out their planned changes. If they declared that they carried them out to a "great" or "some" extent, counselors were asked to show evidence of such implementation. If changes were said to be carried out to "little" or "no" extent, counselors were asked to give the primary reason why they did not carry out the task.

Of the 266 tasks which they had planned to implement, the counselors carried out 146 to "some" or "a great" extent (55%). Brickell's list of obstacles which was mentioned earlier was used to categorize the tasks that counselors failed to implement. The most often mentioned of the 120 tasks that failed to be carried out, time factors (41), space problems (10), administration problems (9) and a new category, "the task now has lower priority" (8).

To make this study even more applicable to this present workshop, let us examine the results under the area of occupational planning and career development since many of my responsibility statements overlap your objectives. Five responsibility statements were taken from the ASCA standards in this area:

1. The school counselor assists the pupils and their parents in relating the pupil's interests, aptitudes and abilities to current and future occupational opportunities and requirements.

2. The counselor collects information concerning careers, opportunities for further training and school curricular offerings.

3. Dissemination should be provided through a carefully planned sequence and include group and individual sessions with pupils and parents, special programs, provisions of up-to-date occupational files available to students, bulletin boards, guidance newsletters and visits by pupils to business and industry.

4. The counselor assists pupils and parents in understanding procedures for making job applications.

5. It is the duty of the counselor to assist in the vocational planning of pupils who have withdrawn or have been graduated from the school.

The counselors rated these statements very ideal. The combined results were:

89 ratings of highly satisfactory
59 satisfactory
9 partially satisfactory
2 unsatisfactory

The counselors did not feel that they had been carrying out these standards according to their ideals, however. The statements were rated as their programs were presently carrying them out as follows:

22 to a great extent
72 to some extent
49 to little extent
15 to no extent

This difference was significant at the .05 level.

The counselors chose 61 tasks to improve their occupational planning area. Thirty-three were carried out to at least some extent (54%). Of the 28 obstacles, those most often mentioned were space (5) and time (5).

Some of the tasks attempted were:

Statement 1

Test students this year with an aptitude test

Have group meetings with parents and students to talk over vocational plans

Make a definite effort to acquaint the parents and students with students' aptitudes and abilities for making occupational choices

Statement 2

Order the Occupational Outlook Handbook

Purchase the Dictionary of Occupational Titles

Write to National and State Governments for free materials

Improve method of collecting and organizing occupational information

Tear down a partition in counselor waiting room and remodel it so that occupational information can be more adequately stored and displayed

Statement 3

Formulate a Career Day

Plan and carry out a "Trades and Technical School" evening program

Take several field trips to small business and industry

Provide greater access to the occupational information which has been accumulated

Have a noon showing of vocational films

Develop guidance bulletin boards with vocational themes

Statement 4

Get a supply of "How to Apply for a Job" for seniors and dropouts

Set up a definite period of time to spend with the non-college bound on job applications

Statement 5

Make GED Equivalency Diploma Information available to students who are dropping out

Some of the obstacles were stated as follows:

The area employment bureau stated that my school was outside their area and did not send materials requested.

The field trips I had hoped to take involved more travel than I expected. I could not get enough drivers.

The displays of information that I planned to put up were not done because my office was moved to a room behind the principal's office. Students do not come in at all now since it appears they are being called to the principal's office.

So much new has happened this year that I now have more important things to do.

Our bond issue failed--we have had to cut back everything.

I had planned to have a vocational newsletter but each teacher this year was rationed five reams of paper. I could not use my paper for this.

The noon vocational film showing bombed. I guess they were not well planned. The students did not attend.

Career night would have taken a lot of afternoon and evening planning sessions. This year all extra-reimbursement was taken away so teachers refused to help on extra projects such as this.

I had wanted to go to the junior high each day and work on occupational planning. Since a teacher quit and there was no one hired to take his place, I was assigned a study hall.

The new principal has asked that all of my occupational information be placed in the library so that all students can get to it. That took care of my plans for dissemination. I need to run to the library every two minutes now.

So many college-bound students asked for transcripts and recommendations this year, I did not have time for those not going to college.

I decided to take courses at a local college in the evenings. I have not done much else this year

The English teacher quit so I have been assigned five periods of English each day instead of counseling

An interesting development was that the reasons given by counselors were the reasons they said and may not have especially indicated the real reasons. In following up some of the comments of seminar participants, I found that many counselors strongly identified with some of the obstacles. That is, they were being assigned extra duties which kept them from developing their programs but when asked if they were trying to change these extra-duties, they stated that they did not want to give them up even if it meant a better program. Many of these activities were for extra pay (bus driving, coaching, athletic director) so in essence they were "moonlighting" within the school day. Others felt secure in their teaching and study hall roles and stated that they could "counsel" and teach at the same time.

Peters (10,11) too, has mentioned that the reasons for not carrying out an innovation often are deeper than those reasons given by counselors:

> Lack of staff, facilities, materials and money are symptoms rather than causes. Too often there is a quick retreat to a listing these factors as the basic deterrents. These merely reflect much deeper roadblocks to effective guidance programming.

Some of the true causes mentioned by Peters included :

1. Theory aversion--giving little thought to the theoretical background
2. Neglect of differential premises--unrelatedness between purpose and technique
3. Lack of communication with the various publics
4. Value differences between staff members
5. The threat of program change
6. The threat to personal security

Recommendations to implementers of this project

As you attempt to implement the materials gained from this workshop, you should remember those obstacles (real and stated) that have been given for past failures. It would seem to me that these might be the things you would want to keep in mind:

1. Ways will need to be found to implement these programs in a positive manner so that there is a minimum of threat on the school staff.

2. Periodic reinforcement will be needed throughout the program--especially during the earlier stages.

3. Constant communication will be needed from decision-makers to implementers to participants so that everyone knows the purposes and benefits of what is being attempted.

4. Those people who plan to implement the changes will need to know what is involved in the change process and to expect some resistance.

5. If the staff has the goals and purposes in mind and are given some knowledge and training in dealing with change, the outcomes should be more positive.

6. Efforts to establish pride in a new experience are usually rewarded.

7. Determine what kind of change is needed and then plan accordingly:

   Metamorphic change means selling and publicizing the program to staff, students and community.

   Homeostatic change means constant evaluation with priorities being established. Constant revision of methods, techniques, goals and even basic philosophy may be needed.

8. Evaluation is needed at all levels. Questions need to be asked, including not only "how is it working?" but also "how do you feel about it?"

There are some general changes that I see from a project such as this:

1. Changes will be needed in teacher education. New courses, new attitudes and new skills will be needed at all educational levels. Not only will teachers need to become more cognizant of work, theories of work and occupational trends but also more knowledgeable about different methods of learning (e.g. role playing, modeling, situational games.)

2. Periodical in-service training will have to be provided. Not only will older teachers need new skills but all staff members will have to keep up-to-date with the changing job market.

3. Changes in assessment will need to be explored. The career development program emphasizes a lot of self-discovery and self-assessment. The letter grade system which emphasizes mostly achievement may be obsolete.

4. Curriculum as we know it in our traditional schools will need to undergo drastic change.

5. Ways to involve the public will have to be examined. Parents and other community members will be needed to help. Businessmen, industrial workers and agency personnel will need to become involved.

Furthermore, in looking over some of the proposed objectives and desired outcomes, I see some specific concerns:

1. What changes in approach are needed with parents so that:
    a. they help the student develop his self-concept
    b. they provide decision making situations in the home
    c. they actively participate in the child's development

2. What change in teacher attitude will be needed so that:
    a. they resist falling back on what has been safe and secure in the past
    b. they feel confident and proud in their new roles and new tasks
    c. they occassionly risk failure in order to try something new

3. What changes in administrator attitude will be needed so that:
   a. they can stand non-structure, confusion, noise, mess and occassional ambiguity
   b. they feel safe in presenting their boards of education with expenditures that are "different"

4. How do school personnel keep up-to-date with changes in business, labor force, tests, inventories and market trends?

5. What changes are needed in the hiring and retention practices in industry?

6. How can we help change the approach of some of our fairly decent trade and business schools so that they no longer use "hard-sell" techniques on our young people?

7. How do we change students' or possibly employers' attitudes as to how such things as how "good personal appearance" influence job interviews?

8. How can we get students to look into the future? How does one go about talking about jobs of the future when many of them do not yet exist?

Conclusion

I have attempted to point out this morning some of the general considerations regarding change and to the implementation of innovations. Before one can carefully assess an individual objective and outcome, he must examine alternative methods and techniques for attaining that outcome. This is where the program implementers will have to most carefully examine obstacles to change.

Finally, with regard to the area of career development, what behavioral changes will you make as a result of this workshop? What plans do you have for changes in your approach to career development in the next year? If someone were to assess your progress a year from now, what excuses would you give for not carrying out your planned change in this area?

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THE WORLD OF WORK: A COMPONENT IN CAREER DEVELOPMENT PROGRAMS

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Introduction

The world of work component in career development programs properly includes content related to the nature of work, the scope and nature of occupations, and perceptions related to work values. Each of these represents a distinctly separate facet of this component of career development. In turn, each of these facets can be thought of in terms of a variety of sub-facets. The purpose of this paper is to break the topic into very small sub-topics. The goal of the paper is to provide a basis for considering the world of work component as an integral part of comprehensive career development programs. The operational assumption inherent in this approach is that, in order to "put it all together," one must first "take it all apart."

The topic will be approached in two major segments. First, the various parts of the world of work component will be discussed in terms of their nature and complexity. Following this, specific suggestions will be made for incorporating this component of career development programs at the elementary, the junior high, and the senior high school levels.

Sub-Aspects of the World of Work

The Nature of Work

Concepts regarding the nature of work must be made clear to youth from an economic, sociological, and psychological viewpoint. These perceptions of work as a generic concept can and should be considered independent of perceptions of occupations and/or jobs which, in reality, represent vehicles for the accomplishment of work.

From an economic standpoint, it would seem that work must be pictured as an essential ingredient in any self-sufficient society. That is, the necessity of work for societal survival can be pictured quite independent of the desirability of work for individuals in that society. The way in which the economic rewards, benefits, and handicaps associated with specific occupations can and should be pictured in relation to the way in which work operates as an influence on and as an influence of the economy. Since a separate portion of this conference is devoted to the topic of economics, no more will be said about this sub-aspect here.

Work, as a generic concept, must also be understood from a sociological point of view in a total program of career development. The social status afforded specific occupations must be seen in the context of the dynamics underlying the means by which differing degrees of social status accrue to differing kinds of work. It is both unfair and unrealistic to emphasize the societal worth and dignity of all honest work unless simultaneous attention is given to the varying degrees of worth our society has afforded various occupations and the dynamics by which such differential worth is assigned. This, of course, is not to say that both concepts need to be taught at the same time nor with the same degree of emphasis. All I am saying is that to fail to include both would be incomplete and dishonest.

The inter-dependence of various forms of work in terms of the total societal good is a second important sociological concept to be included in a generic view of work. Work as a service to society is an essential part of this concept and one which can assume operational meaning for any recognized occupation. An equally important part of this concept is the notion that work begets work; i.e., work on the part of one individual helps make work possible for other individuals. A third important part of this concept is the considerable degree to which, in order to produce work useful for others, the individual worker must depend on others to produce work useful to him. This aspect can be thought of in terms of the total society, in terms of the micro-society represented by the community in which the person resides, and in terms of the still smaller portion of society represented by the work setting in which the individual is employed. While the principle is the same, it takes on quite different meanings when thought of from these three perspectives.

From a psychological point of view, work must be seen in terms of interests, aptitudes, skills, and values that are held and/or are possible of development for the individual. That is, the true meaning that any occupation or job holds for a given individual must have a highly personalized base if it is to have any operational significance in terms of his actions. In terms of occupational or job choice, that meaning is generally reflected in the question, "What is likely to happen to me if I choose to enter that occupation?" In terms of generic concepts of work, the meaning is generally reflected in the question, "How can I work in such a way as to make maximum contributions to and receive maximum benefits from the total society?" The importance of this question, and the emphasis given one part of it as opposed to another, is a psychological matter that can be expected to vary greatly from individual to individual and within any given individual as he moves toward vocational maturity. Again, since the topic has been singled out for discussion in another part of this conference, no more will be said about it here.

The Scope and Nature of the World of Occupations

Generic concepts of the nature of work must, if they are to be implemented in planned vocational decision-making activities, be triggered into action based, in part, on how the student perceives the occupational structure. Because there is no uniform agreement regarding how the occupational structure of this country should be perceived, those responsible for designing career development programs must face this problem and arrive at some decision regarding which of the several available schemes they wish to incorporate at which point in their program.

The common goal, of course, is to allow the student to learn a way of studying occupations that will both allow him to see occupations related to each other and, at the same time, afford him a basis for deciding whether or not he wants to consider one or more specific occupations for himself. It is on both of these dimensions: (a) Relatedness of jobs; and (b) Basis for personal decision-making that the various schemes for classifying must be viewed.

For example, the Dictionary of Occupational Titles classification scheme places occupations together basically in terms of similarity of job skills and job duties. To this, in the last three digits, is added information relative to the extent to which the occupation is related to people, data, and things. On the other hand, Holland's occupational classification scheme is a psychological one based on a theory of personality types of individuals and an assumption that individuals will tend to choose occupations consonant with their personality types. It is obvious that considerable differences exist between the way occupations are grouped in the DOT and the way they are grouped in Holland's six category system. If one studies the Occupations Finder published for use with Holland's new instrument, The Self Directed Search, it can be seen that, for any one of Holland's six categories, there exists considerable variation in the first digit of the DOT code for occupations included in that category. There also seem to be considerable differences in the last three DOT digits corresponding to people, data, and things although it is interesting to observe the high degree of similarity appearing in one of the three. For example, in Holland's typology of Social Occupations, the DOT code has an "8" for its last digit in all but three of the occupations included indicating them to be similar in possessing no significant relationship to "things." In others, it is the fourth DOT digit that appears to show the similarity while, in still others, it is the fifth.

The problem is greatly compounded, of course, when one considers other occupational classification schemes now in fairly common use. For example, the Census system is essentially one having a sociological basis with further classification based on type of industry or employment setting. Roe's classification scheme, on the other hand, is, with Super's additions, now seen as a three dimensional one involving eight fields, six levels, and nine types of enterprise. Here again, we see two quite different ways of classifying occupations with great variations in implications for perceptions of similarity held by youth depending on which system is in use.

It is interesting to see how, as each of these classification schemes has developed, each appears to have added new dimensions in its total scheme for classifying specific occupations. Yet, each remains bedded in a basic logic underlying the scheme itself. The DOT still depends on similarity in job skills and duties, Roe depends on occupational interest, Holland depends on similarity in personality types, and the U. S. Census system depends on an economic base in its basic structure.

Each of the common systems for classifying occupations seems particularly valuable from at least one standpoint and relatively lacking in value from other standpoints. It would seem that the question of which has the most worth must, in operation, depend largely on the individual whose career development is under consideration and the particular stage of career development he is in. This means, of course, that the counselor, at this stage of things, should really be familiar with and able to use all of the common occupational classification schemes. It would seem unwise to build an entire career development program for a single school or school system based exclusively on only one of these systems. True, one must be chosen, operationally, for purposes of storing and classifying occupational information, but this should not deter the consideration and use of others when dealing with particular students.

This, of course, raises an entirely different set of questions regarding the nature of occupations; namely, what should we tell youth about occupations? Each of the various systems now in use for classifying occupations seems to have arrived at a somewhat different answer to this obviously important question. In the first rough draft of guidelines for this conference, five kinds of information were listed to familiarize students with various features of work: (a) composition of the work force as a whole; (b) work conditions; (c) work performed; (d) benefits and restrictions of employment; and (e) change and its effects. If we were to examine the recommended NVGA outline for a good occupational monograph, we would find still another system.

The typical topical outline most persons in the field seem to accept would, in addition to the name and classification identification of the occupation, include some information regarding: (a) nature of the work performed; (b) job skills required for performance; (c) entry requirements and methods for entry; (d) training and/or educational requirements; (e) working conditions; (f) work benefits (including pay); (g) opportunities for employment (and whether they are rising or declining); and (h) opportunities for advancement. On the surface, such topics certainly seem appropriate. That is, they seem to us to represent a sensible and logical basis for vocational decision-making. I am not criticizing them nor suggesting such topical content be eliminated. Those engaged in any substantive field determine the basic content of the field through their activities.

The question to be raised is, are these really the bases on which students are today making occupational decisions? Do these represent the questions students themselves most want answered? On several occasions in the last few years, I have observed situations in various parts of the country where students were encouraged to visit work settings and ask workers any questions they wished. Typical reports would indicate that students do not cover the same areas with the same relative emphasis as is found in our typical occupational literature. It would seem that, to say the least, this is an area in which a great deal of additional research is needed. No one would pretend that students know all the questions they should ask. We can hope that neither will anyone pretend that the real questions real students of differing ages from differing sub-cultures ask about occupations should be ignored. The point is, in considering a comprehensive program of career development, clear provision should be made for discovering questions students have and for implementing means of helping students secure answers to such questions.

Work Values and Work Motivation

Why do people work? Why do some people work in "X" occupation and others in "Y" occupation? Questions such as these form a third sub-aspect of the world of work component in comprehensive career development programs. Because a separate portion of this conference is devoted to "Self and Environment," this topic will be touched on only very briefly here. In spite of its obvious appropriateness for other major parts of this conference, it cannot be totally ignored even here.

There seems to be general agreement that the values of a work-oriented society should be systematically imparted to youth as part of career development programs. Such values include:

(a) All honest work has innate dignity

(b) All work has valuable positive contributions to make to society

(c) Excellence can be attained and should be rewarded in any occupation

(d) Work holds potential for personal as well as for financial rewards

(e) Hard work is the safest and surest route to success

(f) It is preferable to work for societal benefits rather than just claim them

(g) Work is at least as much a way of making societal contributions as it is of gaining societal rewards

(h) Work is more correctly viewed as a personal benefit than as a necessary burden; and

(i) A task well done is its own reward

Such a list could, of course, be greatly expanded with little difficulty. The point is, such values, like any other set of values, simply represent beliefs. While some would contend that, as values, they represent higher truths than truth itself, surely most would agree that, as values, such statements have a different base of origin than that truth derived from empirical research and experimentation.

Recognizing this, we are faced with three basic questions that must be answered in defining the world of work component in career development programs: (a) To what extent should our goal be one of instilling such values in all youth; (b) What do we do with youth whose work values are different from the examples given above; and (c) Are there not some negative views of work that youth should also learn in the process of their career development?

In approaching answers to such questions, it may be helpful to recognize that "work" is a four letter word -- and may, to some people, hold all of the negative connotations some persons in our society seem to assign to words having four letters. Are people who work "better" than those who do not? Is everyone theoretically supposed to enjoy his work? If not, why not? If so, how can this be possible for all occupations? Are there not some unpleasant, distasteful, and even repulsive aspects of most occupations? If so, should these not be made as clear as the positive "sweetness and light" theme reflected by the values of a work-oriented society?

We must face the fact that some occupations can, by almost anyone's judgments, be regarded as dirty, smelly, uncomfortable, lacking in challenge, boring, uninteresting, non-creative, low-paying, hazardous, and supervised by uncompromising, unsympathetic individuals. Yet those jobs exist (and in greater numbers than we typically are willing to admit) because society needs their product, be it goods or services. Who will choose to do such jobs? Why will they choose to do so? Is work its own reward? It does not seem sufficient to answer by saying that such jobs are really consistent with the vocational interests of some individuals and are, therefore, attractive to them even though repulsive to us. We must do better than that. What I am trying to say is that, to "tell it like it is" demands that we tell the negative, as well as the positive, side of the world of work.

Further, and even more important, it is essential, [illegible] considering the world of work component in career development, to recognize that the work values of any person are only a part of his total value system, that the work values of many youth today are quite different from ours, that they have a perfect right to hold the values they hold, and that, if we are to be successful in helping youth understand and incorporate some of our values, we cannot do so by ignoring or undermining theirs. Work values, like the nature of work itself, are in the process of societal change. A realistic world of work component in a comprehensive career development program must recognize and act on this fact.

The World of Work Component at Various Levels

Elementary Schools

Most of the current literature on career development in the elementary school emphasizes the importance of teaching positive attitudes towards work and towards workers in all occupations. There is a solid base of research evidence that indicates that the strongest personal values of the individual and those held most firmly are those learned early in life. It is this evidence that forms the rationale for imparting the values of a work-oriented society to elementary school youth as they are developing other parts of their personal value system. Many, many thousands of elementary school age youth will be ignorant of such values unless they are taught in the elementary school. I would agree with those who contend that this is the single most important aspect of the world of work component to be taught at the elementary school level. At this level, it does not seem either wise or appropriate to emphasize strongly negative connotations associated with the distasteful side of work. Elementary school students find it difficult to differentiate clearly between "work" and "play." It would seem wise not to give it the same degree of emphasis as is appropriate at the junior and senior high school levels.

The study of occupations in the elementary school should, it would seem, be initially oriented around the concept of interest as the single most important base. As we know, various kinds of aptitudes are not well differentiated within particular students at this age level nor have differential skills been highly developed. The elementary school is the age of interest as a prime motivator of behavior. This should be capitalized on.

Occupations to be studied at the elementary school level can also be thought of in terms of variety. Using this criterion, it seems appropriate to begin, in most communities, with occupations students see in operation in their neighborhoods and rather immediate environment. Again, there is research evidence indicating the wisdom of basing the study of occupations, in part, on those occupations parents of the students are engaged in. That is, the chances of these students following occupations at a completely different level are considerably less than their chances of following occupations not greatly different, in terms of level, than those of their parents.

Observations included in the preceding paragraph require certain modifications in the case of elementary school students from severely disadvantaged backgrounds. I would contend that it is important for students from such backgrounds to gain and hold respect for the occupations of their parents and of other adults in their neighborhoods. At the same time, it is especially crucial that such students, even at the early elementary school level, be able to see occupational possibilities outside of their immediate neighborhood environment. Far too little attention has been paid to this problem to date.

Field trips to observe workers in various occupations are as appropriate at the elementary level as at any other. However, the observational emphasis during such field trips will, to a relatively greater degree, concentrate on the societal contribution of the product (be it goods or services) and, to a relatively lesser degree, on how the product is produced or delivered.

There are, of course, numerous elementary schools now in which some "hands on" exposure to basic occupational tasks are taught. It would seem to me that this represents another area in which further development is greatly needed. Again, there is good reason to support the reasonableness and the practicality of some such experience in the upper grades of the elementary school.

Junior High School

If it is appropriate to say that the major world of work emphasis in the elementary school should be on work values, then it is equally appropriate to say that the major emphasis at the junior high school level should be on work exploration through work experience. The biggest challenge facing career development at the junior high school level is that of helping students take the attitudes and broad exposure given them in the elementary school, build on additional perspective regarding abilities required for successful performance in various occupational areas, translate these new learnings in terms of their present and planned educational programs, and make personal decisions regarding how school can make sense to them in terms of their expected occupational futures.

It is at the junior high school level where the concept of differential occupational aptitudes for a given individual begin to take on operational meaning. It is at this same level where the student is typically first exposed to the concept of educational electives and faced with the problem of making initial choices of senior high school educational programs. Such choices have clear career implications for every student.

By the junior high school years, the typical student should have sufficient vocational maturity to study meaningfully the major families of occupations that exist. Such study, at the junior high level, should center largely around the various kinds of job skills required for successful performance. It would seem that full advantage should be taken.of the fact that it is during the junior high school years that students first begin to question their own potentialities and incorporate the concept of aptitude into their previously acquired concept of interest as a basis for considering occupational decisions.

Study of the world of work, at this level, should begin with the total community in which the students live, rather than the neighborhood. Junior high school students have proven themselves very capable of making community occupational surveys whose data concentrate on information regarding the job duties and skill requirements of various occupations. When such data are used in making clear the occupational implications of the various subjects pursued in the junior high school, they are most useful in helping students see relationships between school and jobs.

The study of occupations, at this level, should be accomplished taking into full consideration the variety of educational opportunities that will become available to these students at the senior high school and post high school level. Such study cannot, of course, be limited only to such specific educational opportunities that are directly related to occupational choice. It is particularly important, at this level, to emphasize the study of new and emerging occupations. With today's occupational forecasting, we can see ahead for about the same period of years as will elapse between the time these students enter the junior high school and leave the senior high school. We have not taken enough advantage of this in planning junior high school occupational exploration programs.

Particular advantage should be taken of the opportunity to provide junior high school students with "hands on" vocational skill exploration activities within the junior high school itself. These basic skills, taught to both boys and girls, may not, however, be as important for this age level as the opportunity, through simulation, to undertake two very major career development tasks. First, it is a relatively simple and extremely effective procedure to simulate the industrial production cycle in the junior high school through the creation of a "company" that invents, designs, produces, and "markets" a product. This has been done for years in junior high school industrial arts classes and the concept can easily be extended to the entire junior high school. Second, equal attention should be paid to providing work evaluation sample activities for junior high school students representing the various kinds of job skills they could choose to learn at the senior high or post high school level. Both of these kinds of activities are appropriate for this level of career development and, psychologically, have great appeal to junior high school age students.

Coupled with these kinds of activities should be an active work experience program for junior high school students where they can actually learn what it feels like to work. There is only a limited amount one can learn about work through books or through simulation exercises. Actual work experience programs are now being mounted in many junior high schools that involve all, or almost all, of the students (including those planning on college attendance). Some special work experience for high potential drop-outs is being carried out. All of these involve some combination of paid and unpaid work experience. Schools who are willing and anxious to involve the business and industrial community in their total career development program have found that community both interested and able to provide good cooperation and support. Ways are being found around what we all now recognize as antiquated child labor laws.

Senior High School

By the time most students reach the senior high school, they have been well saturated with concepts regarding the complexity of the occupational structure and the concept of rapidity of change now being experienced within that structure. This is not to say that such an emphasis should be abandoned in teaching about the world of work at this level. At the same time, the need for a supplemental and quite different emphasis more related to the "here and now" is what should be emphasized.

The senior high school student, as a normal adolescent, can be expected to be suffering both the joys and the pain of what has been referred to as "the wonderful age of absolutism" -- the age where one is convinced that, somewhere, there is one and only one answer to every problem. This, of course, is simply a reflection of the natural kind of insecurity adolescents experience as they become more and more aware of the fact that, eventually, they are going to have to take care of themselves and assume responsibility for their own lives. The school career development program that continues to focus on the "broad picture" and the "inevitability of change" will find many senior high school students "turned off." Because things will change does not mean they fail to exist in some form today. If a student is to graduate in June, he needs, among other things, to have some plans with respect to what he might do in July. This kind of normal adolescent need should be recognized and taken advantage of in teaching the world of work to senior high school students.

There will, of course, be (or should be) a major emphasis on work experience programs for senior high school students as well as for those in the junior high school. The difference is that, at the senior high school level, the work experience program should bear some more definite relationship to real or tentative occupational choices. Exposure to particular kinds of work, rather than work as a generic concept, should be the goal of senior high school work experience programs.

Again, as in the junior high school, local community occupational surveys should be a common activity for teaching about the world of work. However, at this level, special attention will be paid to entry level jobs as well as higher level occupations related to such jobs. Senior high school students are very capable of carrying on such surveys on a continuing basis. In addition, these students are very capable of carrying on continuing follow-up studies of former students from the high school regarding the occupations and careers such students have found for themselves. There is an important principle here; namely, that information most useful in a "here and now" sense is also that which will become outdated very soon. If the abilities of the senior high school students themselves are utilized in collecting and analyzing data, this can become a very real asset.

In emphasizing the importance of data of a temporal nature, no implications should be drawn that more stable data covering a wide range of occupations practiced in various parts of the country should be ignored. Quite the contrary. By the senior high school, most students are able to conceptualize beyond that which they can only experience. With the current rate of geographic mobility in the U. S. population, it is essential that information regarding the world of work be presented to senior high school students from the broadest national perspective. While up to eighty percent or more may indicate a desire to make their adult residence in their home communities, we know that many fewer than this will actually do so. No student should be handicapped in his career development by the geographic region of the country in which he resides. Unless the school takes active and concerted action to avoid such handicaps, they will inevitably take place.

It is especially at the senior high school level where the expertise and assistance of the business and industrial community is needed in teaching students about the world of work. This assistance is needed, not only in giving students work experience and local occupational information, but also in providing opportunities for senior high school students to visit with adult workers about their total life style. The worker as a person is an emphasis that has been much neglected in most senior high school career development programs to date. The incorporation of work values with other personal values must, somehow, take place for every senior high school student as he leaves school for the "real world." These kinds of learnings are too important to be left to chance. Again, they can be experienced, on a simulation basis, through materials, such as those Ann Martin has produced, emphasizing a humanistic approach to career development. No matter how much such simulation is provided, it will be a poor substitute for letting real students visit with real workers, real supervisors, and real employers.

The language of the world of work should be consciously taught at the senior high school level. Terms such as "selection ratio," "union," "apprenticeship," "supervisor," and many, many others can and should be taught as part of the world of work for senior high school students. Since the major attention will undoubtedly be given this topic later in this conference, no more will be said about it here.

It will be particularly important, at the senior high school level, to incorporate meaningful material with respect to the world of work for all students. Far too often, we seem to have somehow assumed that this kind of content is needed only for those who will seek immediate employment after graduating or dropping out of high school. The student who, after high school, will enroll in a post high school educational program, is fully as much in need of information regarding the world of work as is the student who will seek work immediately after leaving high school. We must cease asking the false question, "Are you going to college or are you going to work?" -- as though those going to college will not go to work. We have been much too willing to adopt an attitudinal stance that says "those who go to college will find their occupations later." Far too many of these students haven't found themselves by the time they finish four years of college! We cannot continue to use the fact that some college-bound students are slow in vocational maturation to justify failing to concentrate on the world of work as a component in career development of all those who profess an interest in college attendance.

Before closing this section, it should be emphasized that what has been said regarding the desirability of adding a "here and now" emphasis to a discussion of the world of work in the senior high school will also apply to many junior high school students. There are many such students who are told provision will be made for them later in their school experiences but who, for many good and valid reasons, will drop out before ever getting this far. This topic, too, is more appropriately discussed in detail in other portions of this conference, but it is too important not to mention here.

Concluding Remarks

This paper has attempted to discuss the world of work as a component in a comprehensive program of career development. In doing so, work as a generic concept, the world of occupations, and work values have been considered as essential subtopics. The examples of insertion of these sub-aspects in the elementary, junior high school, and senior high school parts of the program are intended as simply illustrative and not as exhaustive. The impossibility of speaking about this, or any other single component independent of all other aspects of career development, should be made obvious by the content of this paper. Career development does not occur in boxes.

Identifying, Organizing, and Using Resources In A Career Development Program

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Resources and materials for career development are not ends but means. If the objectives of a career development curriculum are to be realized in a pervasive, comprehensive, sequential program, ways must be found to identify, organize, make accessible, and disseminate all types of materials which facilitate student career development; to identify human and non-human resources available to both students and professionals; to train students, paraprofessionals, teachers, and others in the use of the resources; and to find ways to relate the resources, materials, multimedia, and programs to individual vocational exploration and to classroom projects. While information is not the only important aspect of career exploration and decision-making, it is a very important one. And acquainting students and professionals with the vast resources and information available could do much to facilitate the development of individual potentialities, the positive self-concept, the sense of control over one's life, and the sense of purpose which are a part of career development goals.

There are a number of considerations to be kept in mind in selecting and utlizing resources. General principles of program design apply to career resource programs as to other aspects of career development. Selection of resources should be based on the nature of the population(s) being served, student characteristics and career needs, objectives of the program, the setting in which it is to become operational, methods to be utilized, and, of course, the budget available. To the extent known, media research should be examined in the selection of materials for a given population, setting, or level. Briefly, an organizer of career information resources might ask the following types of questions:

1) Who will be the major user--student, parent, or professional (teachers, counselors; elementary, junior high, senior high, post-high)?
2) What ability, interest, and developmental levels need to be met?
3) What kind of variety is necessary in types of information (occupational,

manpower trends, vocational training, college, financial assistance, employment, draft and alternatives, decision process, marriage and family, etc.)?

4) What kind of variety is necessary, desirable, and possible in media (kits, films, filmstrips, cassettes, files, books, monographs, etc.)?

5) What training will be necessary for the users and who will provide it?

6) How will the resources be publicized, accessed, and disseminated?

7) How will the career development resources relate to other school and community resources (agencies, subject resource centers, etc.)?

8) How will the materials and resources be evaluated?

Finding answers to some of these key questions is essential to effective resource utilization and to implementation of a career development curriculum.

Cautions

While the potentials of materials and resources as aids to facilitating career development seem abundant, there is also room for caution. One of the cautions is in relation to gimmickry and panaceas. There has been a tremendous spurt of commercial materials on the educational market in the last few years, not all of them sound. One needs to carefully evaluate the materials in terms of accuracy, recency, readability, usability, appeal, comprehensiveness, and the like. Do they really do what they claim to do? Do they have a valid content or conceptual base? Are they appropriate for the level intended? Do they have a significant impact on vocational exploration or placement? Or are they gimmicks which don't really pay off but leave the user disappointed and with the same information deficit? Do they truly contribute to the larger goals of the career development program? Are their goals consistent with what is known about career development in the 1970's?

If materials need to be evaluated, some programs also must be questioned. Most of the programs described in the ERIC-NVGA monograph on Career Guidance Practices in School and Community(1) were genuine efforts of educators and lay people who wanted to "do something" about vocational guidance. While some were elaborate research projects, few of the more practical programs were based on any kind of conscious design, laying out in a systems way the individual, environmental, objective, setting, process, and product inputs (2). Few had clearly designated their objectives or developed a sophisticated program design which would survive the test of rigorous scrutiny and evaluation. While many were "model programs" in the sense of being on the cutting edge of career development, and the precursors of the current more comprehensive programs, they were often lacking in both process and product evaluation. A new publication of the ERIC Centers for Vocational-Technical Education at Ohio State University and for Counseling and Personnel Services at the University of Michigan called Handbook of Vocational Guidance Methods will go the next step and attempt an evaluation of programs, projects, and methods included.

Perhaps an even greater caution is in the need for finding the appropriate vehicle or mechanisms for using the career development resources, materials, and programs. No teacher, counselor, vocational educator, or paraprofessional wants to waste time in identifying, organizing, and classifying a vast array of materials which essentially go unused. How to get the career development materials and resources used and used in meaningful ways becomes a real key to the effectiveness of the program. If students are to become autonomous individuals controlling their own destiny, they will need ways to develop this independence in use of resources in planning and decision-making and not be spoon fed every step of the way. They will need to learn to identify those resources most appropriate to their own goals but also appropriate to their own learning styles. The use of resources should be related in some way to indices of vocational maturity--the awareness and concern with choice, acceptance of responsibility for choice-making and planning, the specificity of information used in job-seeking and planning, and conceptions of the decision process. Any of the factors identified by Super, Crites, Gribbons and Lohnes or others might serve as a basis for examining the relationship between use of resources and vocational maturity. In this age of accountability, spending large amounts of money on media of questionable value which go unused is difficult to justify.

The career needs of the populations served suggest another type of caution. The resources available need to be geared to the needs of all the subcultures within the student population--to communicate the idea that career development is for all (not just the college-bound, for example) and that the resources and career information services are available to all. Thus the program needs to attend to all kinds of diversity in users--resources for Blacks, Chicanos, Indians, white Americans; for the special needs of girls; for the early-committed junior high student; for the uncommitted senior who is undecided; for the employment-bound; for the college-bound; for the immediate job-seeker as well as the long-range planner; for all kinds of planners and decision-makers, including those who decide not to decide. From "Freddie Fater" who thinks "It's all in the cards so why bother?" to "Penelope Planner", the perfect decision-maker who has the emotional and rational factors in balance, both the human and material resources should be available. (3) With these cautions and considerations in mind, let us turn to ways of categorizing resources.

Categorizing Resources

There are many ways to categorize resources and materials. Typical categories used are 1) type of publication or media--monograph, brief, subscription service, posters, charts, audio-visual, etc.--and 2) source of information--government, commercial, professional and industrial organizations, private agencies and companies, educational institutions, periodicals, bibliographies or indexes. One meaningful way to classify resources has been conceptualized by Thompson (4) who tries to relate the various types of media to the nature of the interaction between the individual and the materials and to the directness and indirectness of the experience (Figure 1). He identifies 10 types of occupational information (which embrace both World of Work and Life as a Worker) according to the model on the following page.

An interesting aspect of Thompson's schema is that the media at the bottom are more pre-structured and fixed, those at the top more individualized. The five at the bottom are also less direct, i.e. they provide information about rather than direct contact with the work world. Between the person and the real world is a

Figure 1

SPECTRUM OF OCCUPATIONAL INFORMATION MEDIA (Thompson)

10. On-the-Job Tryout: Parttime; summer jobs; Work-study programs. 9. Directed Exploratory Experiences: Work Samples; Work Evaluation Tasks. 8. Direct Observation: Visits to work settings	Provides direct contact with actual work situations
7. Synthetically Created Work Environments: Combination of stimuli and environmental manipulation. 6. Simulated Situations: Career Games; Role Playing	Simulation of Work Settings and Occupational Roles
5. Interviews with Experts: Questioning representatives of occupations; Career Days. 4. Computer Based Systems: Computer systems which store, retrieve and process occupational data in response to individual requests. 3. Programmed Instructional Materials: Books and workbooks.	Information is processed by and adapted to the needs of the individual
2. Audio Visual Aids: Films, tapes, Slides, etc. 1. Publications: Books, monographs, Charts, etc.	Information is prestructured, fixed, and designed for general use.

mediating agent--book, film, a computer, a person. But the top six provide various degrees of direct experience in the work situation. The author hypothesizes that the closer the occupational information is to the real situation and the more it allows an individual to adapt it to his own particular use and needs, "the more likely it is to be 'internalized' and to have an effect upon his vocational development and career progress." (4, p.6) He concludes by citing the need for not only a lot of creative media but also careful research in testing the effectiveness and applicability at various stages of career development.

Samler (5) has been critical of the focus of much occupational information on what he calls Economic Man rather than on Psychological Man. He argues for a clearer presentation in occupational literature of psycho-social aspects of work--what it means in the life and life style of the worker and not only external information about trends, pay and working hours. Hansen (1) has classified illustrative programs of career information on the basis of whether they are 1) sequential or developmental in nature; 2) units within courses; 3)occupations courses; 4) coordinated school-community programs; and 5) those utilizing advanced technology (multimedia, computer-assisted guidance, and simulation). See appendix B) Miller (6) identifies eight method clusters which overlap to some extent with Hansen's. Another yet unexplored way to organize resources for a career development curriculum would be according to goals or objectives. For example, it could be helpful to have a classification of resources, materials, and programs which are geared to 1) Developing a sense of planfulness; 2) Improving self-concept; 3) Upgrading aspirations; 4) Providing a sense of involvement and community relatedness; 5) Providing role models; 6) Motivating exploration; 7) Providing "hands on" experience; 8) Accelerating vocational maturity; 9) Orienting to the World of Work and the like. See Appendix A for Materials Classified According to the Ohio Levels and Components Career Development Curriculum model.

An Organizing Framework

Another way to explore the question of organizing resources is to ask further questions about career information resources and programs and how they fit into the career development exploration process. Some theoretical and operational questions which might be posed are as follows:

1) What kinds of information and resources do students in a particular school and at different developmental levels need? What kinds of information are most important?

2) What kinds of information and resources exist and how do students have access to them?

3) How do students know what they need and when they need it? How do they obtain it and use it in their own self-exploration, work exploration, and decision-making?

4) How can resources and information about self and work be used to open up possibilities for students rather than prematurely narrowing down, slotting, or channeling?

5) How can the huge occupational world be brought down to manageable size so students, parents, teachers, and counselors have a conceptual map or framework within which to start examining possibilities?

6) What are some of the most effective media and resources through which students at different levels and with different needs can be assisted in their career exploration?

7) What are the respective contributions of man and machine, the human versus non-human media which can be used to facilitate career development? What combinations of human-material resources can be used effectively?

8) What are the main organizing, administering, and staffing patterns ~~through~~ in which the goals of career development can be realized through utilization of resources and media?

9) What kinds of professional and paraprofessional school and community resources can be found to assist in the career development program?

Circle and others (7) describe a comprehensive four-pronged "Career Information Program" organized and implemented in the Newton, Massachusetts, Public Schools. Their model includes a Career Information Library, a Job Placement Service, A Followup Service, and a Career Guidance Resource Center. They offer the following "Guidelines for Developing A Career Information Library":

Develop an Adequate Rationale or Statement of Purpose for Introducing the Service to Your School
Responsibility for Coordinating the Service Should Be Given to One Person
Funds Must Be Budgeted for Career Materials on a Regular Basis
Establish Criteria for Acquiring Materials
Locate Reliable Sources of Information
Develop a Workable Classification and Storage System
Utilize Good Business Management Practices
Establish Open Communication Networks
Location May Determine Effectiveness
Work Closely with Existing School Library Services
Keep Career Information Up-to-date
Keep Administrative Rules and Regulations to a Minimum

The Newton Project seems to be a well-designed and evaluated model, and the project report itself (7) could be a valuable resource for any system wishing to organize a Career Information Service.

An Integrating Model for Career Development Resources

The idea of organizing resources into some kind of information center is not particularly new. There are many different models around the country: the Regional Career Information Center and Project VIEW in San Diego; the Career Information Center in Herman Ridder Junior High School, Bronx, New York; the Career Information Service in Newton, Massachusetts, just described; the Career Resource Center of Northeastern University in Boston; the National Career Information Center in Washington, D.C.; and the Community Resource Center in Robbinsdale, Minnesota, to mention a few.

I would like to briefly describe another kind of Career Resource Center with which I have been involved in the past two years. It has not been reported in the literature, (See Appendix C for Brochure recently published) and it is still a pilot project, but I would like to describe it for you because I believe it has some real potentials for utilizing materials and resources to unify curriculum around a career development theme. It has some unique features which are geared toward the development and implementation of a comprehensive career development program. Part of the Counseling and Guidance Program, it has drawn freely on the experience of others, is adapting promising practices tried out in other places, has capitalized on multimedia available (within the confines of a limited budget), and--probably its most unique characteristic--utilizes trained volunteers as well as professionals in relating the resources both to the community outside and the classroom within. It is in the process of finding some answers to the questions posed on the previous page.

The Volunteers in Career Guidance Project at Marshall-University High School in Minneapolis, Minnesota, can best be described as People, a Place, and a Program. The people are the counselors, volunteers (who give a half day a week staffing a resource center and performing other career guidance functions), parents involved in identifying learning sites and using materials, teachers bringing classes to the center, students who are the primary users--and a Student Careers Committee which serves as a kind of steering committee.

It is a *place*--an attractive, warm Career Resource Center--in which are assembled and displayed a wide array of media--printed, audio-visual, kits, games, cassettes, computer terminal, job data bank; and curriculum guides, learning packages, teachers' manuals, career development books, and project descriptions for the teacher who wants to do something about career development in his classroom. It is a place where systematic career information programs (career family of the month) are held, where special classes for interest groups convene,(led by student and adult volunteers with special talents), where vocational school and college representatives and draft counselors talk with students; and where students can come to browse or be put in touch with community resources and educational-occupational contacts.

It is a *program*, the beginning of an emerging developmental career guidance program, a focal point for the counselors' attempts to provide greater "delivery of services to students in the occupational-educational area. It is a home base for a sequential program of career information(especially in the senior high); it is the hub of the wheel through which counselors and paraprofessionals consult with teachers on occupations units, psychology of careers classes, Life Career Game, and Career Development Curriculum materials. Compilation of a directory of in-school and community resources--like that of Akron,Ohio--is one of the major projects started this year but to be enlarged and continued next year and each year thereafter. It will include individual resources available for assemblies, small groups, interviews, and volunteer work; it will list work, volunteer, and observation sites; it will identify businesses and industries available for psycho-social tours; and it will include occupational and educational backgrounds and contacts of all staff and volunteers.

While the program is not without its pitfalls and problems, it is a start--and just a start--of one school's attempt to develop a comprehensive career development program; to get students out into the community and the community into the school; to implement systematic experiences in grades 7-12 in the Center, through school subjects, and in the community; to provide consultative services to teachers; to make human and non-human resources more visible and accessible; and to help students at various levels of vocational maturity and developmental stages with differing career needs to get assistance from concerned, caring adults who have been trained to help them find and use the information and resources they need in developing their potentialities. In the blending of student career development, school and community resources, and curriculum intervention, it is a start on "Getting it all together."

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APPENDIX A

RESOURCES AND MATERIALS FOR CAREER DEVELOPMENT ORGANIZED FOR THE OHIO GUIDELINES FOR A CAREER DEVELOPMENT CURRICULUM

K-6

Junior High School

Senior High School

RESOURCES AND MATERIALS FOR CAREER DEVELOPMENT
K - 6

	Self & Environment	World of Work	Education & Training	Economics	Employment & Work Adjust.	Deci Makin
ATERIALS FOR TUDENTS	Amer. Guid. Service - Developing Understanding of Self & Others (DUSO) SRA - Focus on Self-Development (Awareness) SRA - Widening Occl. Roles SRA - Seeing Ourselves & Rochester Occl. Readers Bessell & Palomares - Institute for Personal Effectiveness of Children (IPEC) Countdown to the '70's - Atlanta, Ga. OEM Project	Sextant - Come To Work With Us Series (Hospital, Toy Factory, Aerospace, Airport, Construction, TV Station) Ira Bank - Career Word Games (Wayne State)	LCG			San Diego Life Car Game - Barbula
ATERIALS FOR ROFESSIONALS	Oklahoma - A Guide for Developmental Vocational Guidance, K-12 New Jersey - Increasing the Vocational Awareness of Fifth and Sixth Grade Pupils Pikeville, Kentucky, Elementary Career Education Program - A "Universe Model" Texas Career Development Curriculum Guide, K-6 - Laws Chicago - Career Development Program Owatonna, Minnesota, Exemplary Program in Career Development - Barber Roseville, Minnesota Developmental Elementary Program in Career Development - Harwood U of M, Duluth Developmental Guidance Units - Moy Gum Technology for Children Project - New Jersey Rochester, New York Project BEACON		Oregon Career-Oriented Relevant Education (CORE) K-12 Career Development for Children Project - Univ. of Southern Illinois - Larry Bailey Philadelphia, Pennsylvania Room To Grow Project - Helen Faust Detroit Developmental Career Guidance Project - Wayne State - Leonard Children Explore Careerland through Vocational Role Models - Ira Bank Occupational Information in the Elementary School - Willa Norris South Carolina Vocational Interdisciplinary Program Exemplary Program (VIP)			

RESOURCES AND MATERIALS FOR CAREER DEVELOPMENT
Junior High School

	Self & Environment	World of Work	Education & Training	Economics	Employment & Work Adjust.	Decision-Making
ERIALS OR DENTS	SRA Widening Occl. Roles (WORK Kit), OEK and Job Experience Kit Katz - You: Today and Tomorrow OVIS Career Development Service - Easton, Pa. AGS Coping With Series Messner Careerwise Books Martin Mar-Media Films and Units	SRA Job Family Booklets SRA Our World of Work (Wolfbein) Career Information Centers (N.Y., Boston, Newton, Mass., Minneapolis, San Diego) Boocock Life Career Game Ninth Grade Units - Hopkins, Minn. Roseville, Minn. Marshall-Univ. H.S. Introd. to Vocations Courses - North Carolina, Georgia, New Jersey Occupational Outlook Handbook Ferguson - Encycl. of Careers Georgia Program of Exploratory Career Education (PECE) What's It Like Cassettes Preparing for Jobs of 70's - Guidance Associates Leonard - How To Face Future Success	SRA Careers & Subjects Minn. Dept. of Educ. - Subjects Related to Careers Ferguson - Technical Education Handbooks Rosens Press - Careers Related to Subjects B'nai B'rith, Chronical, Labor Dept. Charts	LCG Darcy & Powell - Manpower & Economic Educ. 1968 C of C - How to Plan Economic Understanding Projects, 1963	Mpls. WECEP C of C: Target: Employment Educl. Resources - World of Work Kit SRA - Handbook of Job Facts Job Guide for Young Workers San Diego VIEWPOINT Entry Empl. Ferguson - You and Your Job Guid. Assoc. - Job Attitude Series 1 & 2 Finney Finding Your Job (for handicapped)	Boocock Life Career Game Palo Alto - Invitation-to Decision Newton, Mass. - Task-Oriented Course in Decision-Makin Katz - You: T and Tomorro Follett - You the Decisio Maker. 196 CVIS

TERIALS FOR FESSIONALS	SRA - Guidance Activities for Secondary Teachers - Munson et al Guid. Assoc. Filmstrips, Cassettes, DuKane Projector, and Manuals	Careers Units - Teachers' Guides and Manuals Mpls. - Urban Studies Occupations Unit Winefordner -- Suggested Model for a Full-Time Coordinator, 7-9 Lockwood - "Four Worlds" Vetter - Planning Ahead for the World of Work (Girls) Hawaii - Career Development Guide, 9th grade

Kodet - Improving Career Development Programs (K-9)

Ludvig - Handbook of Interpersonal Communication Skills

B'nai B'rith Counselors Check-Up List; Sextant Directory of Free Materials for Counselors and Teachers; NVGA Bibliography of Current Career Information; Educators' Guide to Free Guidance Materials

RESOURCES AND MATERIALS FOR CAREER DEVELOPMENT
Senior High School

	Self & Environment	World of Work	Education & Training	Economics	Employment & Adjustment	Decision-Makin
TERIALS FOR UDENTS	AGS *Coping With* SRA Job Experience Kit Leadership Resources Monographs Guid. Assoc. Filmstrips & Cassettes Mar-Media	SRA *Our W of W* Newton, Mass. Career Info Service MUHS Career Resource Center Mobile Career Info Units Whittier EWEE Texas Careers of Month Program Vancouver Career Conf. Ga. That's My Business Wilson Tapes on Exploring W of W Sextant Career Dev. Program 10-12 Dictionary of Occl. Titles Computer-Based Vocational Guid. Systems	Lovejoy's College Guide " Vocational Guide SOS Kit Chronicle College Viewdeck Natl. Directory of Vocl. Schools Amer. Colleges & Univ. Amer. Jr. Colleges Ferguson Technical Education Handbooks Comp. Guide to Amer. Colleges CEEB Directory of Special Programs & Financial Assistance for Blacks & Other Minorities CEEB - Money for College SEARCH CEEB College Handbook SRA - COEK & Your College Degree ASK - College Search Kit Interactive Learning Systems EDINET College Search Programs AStin Who Goes Where to College? Mobile Career Info Units	Manpower Report to the Pres. USOE Economics for Young Workers Wolfbein - Labor Trends, Manpower & Automation Occupational Outlook Handbook	~~WECEP~~ - Mpls. SRA Job Attitude Series 3 & 4 Whittier EWEE Minn. Importance Questionnaire Ferguson-You & Your Job MDMS Job Data Bank DOT Job Analysis - Hoppock Job Opportunities Now - SVE Newton Job Placement Serv.	Boocock Life Career Game Byrn - Career Decisions Magoon - Effective Problem-Solving Christensen - An Invitatio Decision-Mak (Worcester, ·CVIS - Harri

TERIALS FOR ROFESSIONALS

Minn. State Dept. of Education - Audio-Visual Guidance Materials
Minn. Career Development Curriculum Learning
Packages (LOPS) : Life Style and Work
The Status of Women and Work
Significant Others
Occupational Satisfactions and Rewards
Value Identification
Self-Concept Exploration
The Social Contribution of Work
Robbinsdale, Minnesota Career Dev. In-Service Program
ES &70 Occupational Sets

AGS Coping With Manuals

Wolfoein - Occupational Info: A Career Guidance View
Hoppock - Occupational Information
Baer & Roeber - Occupational Information
Isaacson - Career Info in Counseling and Teaching
Garbin - Worker Adjustment: Youth in Transition
Burchill - Work-Study Programs for Alienated Youth
Katz - Decisions and Values
Womanpower Policies for the '70's
Career Information Service - Newton, Mass.
New Approaches to Counseling Girls in the '60's
Counseling Girls toward New Perspectives

Ohio State Department of Education
Career Development Programs
June 7, 1971

CAREER GUIDANCE FOR INNER-CITY YOUTH IN ACTION:

THE DEVELOPMENTAL CAREER GUIDANCE PROJECT

George E. Leonard, Wayne State
University, Project Director

The Developmental Career Guidance Project was initiated in 1964 in order to help young people become better able to take their places as worthy, contributing citizens in our society. Far too often, inner-city youth are unable to do so because of various causative factors that have blunted their growth potential. Indeed, by the time many inner-city youngsters reach adolescence, a feeling of hopelessness and futility regarding their position in life has already become evident.

Consequently, the Developmental Career Guidance Project has attempted to aid individuals to become more aware of themselves and their possibilities in their world. Objectives of the Program specifically are:

1. To broaden the perceptual field of inner-city youth regarding occupations and opportunities.

2. To help overcome their lack of planning for the future. To help them become aware of the need to make realistic plans for their future. Since so many inner-city youth desire immediate gratification of their needs, this is a difficult task.

3. To provide better occupational role models with whom inner-city youth can readily identify.

A framework around which such a program could be organized would naturally have to take into account the vocational development tasks a child has to accomplish. These, as Super has conceptualized, are as follows:

Vocational Developmental Tasks

To Learn:

Dependency --
E Independence
L Social Interaction
E Industriousness
M Goal Setting
. Persistence
(In this fantasy stage, aspiration and broadening of knowledge are most important.)

Socialization
J Coping with School
H Dealing with family attitudes and values
S Developing own attitudes and values
. Passing school subjects
(Self-knowledge is stressed at this stage in our program as well as knowledge of educational and training opportunities.)

Choosing curriculum
S Developing study habits
H Making tentative educational-vocational choices
. Implementing self-concept
(Emphasis is placed herein on the formulation of concrete choices.)

Once these are taken into account, it can be seen that the vocational developmental opportunities presented to an individual are also crucial. The following opportunities can be seen to be of importance:

Vocational Developmental Opportunities

Opportunity to:

E React to parental handling and attitudes
L Explore environment
E Develop peer relations
M Develop authority relationships

J Learn about world of work
H Develop attitudes toward school and school subjects
S Have after-school work experiences

S Academic exploration
H Occupational exploration
S Social role exploration

It can be seen that aiding children in taking advantage of their opportunities will aid them to progress in their self-understanding. A child can be meaningfully aided to understand himself, to accept his strengths and liabilities, and to develop a wholesome attitude toward himself. In terms of your career development model:

Focus on *Self and Environment* and *World of Work* are emphasized throughout K-12. The objectives you mention are implemented through individual and group activities.

Education and Training as well as *Employment and Work Adjustment Skills* are emphasized beginning in junior high school both through group guidance in curricular and non-curricular areas and individual counseling.

Decision Making is not dealt in a formal fashion although we feel it is an important concomitant outcome of group and individual counseling and group guidance activities.

Although we have taken Super's theoretical constructs as our basic rationale, the activities carried on in the project reflect an eclectic evolvement of an empirical approach.

The program has been designed to progress in several phases as follows:

Phase I, *Preparation for a Demonstration Project*, consisted of a preparatory summer workshop for school personnel from an experimental region in inner-city Detroit. The objectives of the workshop were essentially to build a knowledgable, supportive Guidance Committee in each school.

a. To stimulate participants to develop a total guidance pgoram in their own school.

b. To prepare them to serve as an advisory committee to the guidance consultants who were placed in each school as part of Phase II.

c. To broaden participants' knowledge of the community by visiting a variety of community agencies, institutions, and post-high school educational institutions.

d. To help participants better understand and communicate with inner-city youth. (For example, some 60 unemployed youth were interviewed individually at Wayne State University's Guidance Laboratory and panels of students interacted with the group.)

e. To realistically acquaint participants with the present employment outlook. This included visits to a variety of employers throughout Detroit as well as to institutions of higher learning.

The over-all goal of the preliminary workshop was to help participants view the school and community in terms of available resources to help raise the aspirations of inner-city youth and help them acquire the skills and knowledge that would not be available to them otherwise.

Phase II, Career Guidance in Action, began in the Fall of 1965 when a guidance consultant was placed in each participating school to assist the workshop team to implement the program. This consultant, under the authority of the school principal, has specific duties not connected with administrative functions. He fulfills a leadership role in arranging for frequent career conferences, serving as a liaison person with the community (employment service, Urban League, labor unions, block clubs, Neighborhood Services, etc.) In attempting to develop job openings, encouraging group guidance services and individual career counseling, arranging field trips, conducting group and individual counseling sessions, etc.

Workshop teams have continued to meet monthly with guidance consultants and project staff and are functioning as an advisory committee as well as helping to facilitate the work of the guidance consultant. The project staff has continued to meet with participants for five years and has arranged for additional needed consultants to implement the program.

Each professional guidance consultant is serving as the leader of a three person team with the other two members of the team being sub-professional members of the community. The first sub-professional is a qualified, deserving student from the senior high school and is serving as a helf-time liaison individual especially in regard to peer contacts and peer counseling. The other member of the team is an adult drawn from the community and is serving in a liaison capacity with students and parents and community agencies.

Because developmental career guidance is an on-going process, stress is continually given to developmental aspects of career knowledge; aspiration, choice, and planning. Stress is also given to the ever changing nature of society: the world of work, social forces and institutions, and educational preparation for adult life. Furthermore, there is an emphasis on guidance and counseling based upon our knowledge of developmental patterns of children.

Guidance thus oriented is conceived of as dynamic, contiguous with growth stages, relevant to the world of work, and integrative of old and new experiences. Such a conception is continually related to what happens to the growing youngster in his classroom, peer group, and home life. It is not seen as simply the province of one educational helper, the guidance counselor. Rather, all those people and learning experiences contribute to the development of the child are included.

Career, as a center of interest around which to affect the curriculum and build on guidance program is uniquely appropriate. Almost every school subject, every physical, social, and mental skill, every structured or unstructured education experience can be related to career planning, either directly or indirectly.

The need for a broader spectrum of experimental knowledge among culturally disadvantaged youngsters is obvious if they are to participate equally in the advantages of our affluent society and if the forces which prevent such upward mobility are to be mitigated. Low levels of aspiration, poor self-concepts, lack of adequate academic and social skills, decelerating scales of motivation:

these and many other characteristics found among youngsters whose lives begin and take shape at the bottom of society's social structure have been described again and again. It is among this segment of our population that the Developmental Career Guidance Project has greatest significance.

Consequently, the most prominent and over-riding objective of the program has been and continues to be the increased awareness of all phases of work attitudes and career choice in every child in every school in the project. An all-embracing effort has been made to create an atmosphere in the project schools where an understanding of the broad spectrum of the world of work and of career demands is unavoidable. Building upon whatever base exists in the young child as he enters school, the DCG Project is designed to add work knowledge and experience, in proportion commensurate with the child's ability to absorb, as he rises through seccessive grades.

A second dominant objective of the program is to help every child to develop a realistic and functional awareness of himself as a worthwhile human being. Individual potential, attitudes, values, skills, aspirations, interests, aptitudes, perceptions, relationships, self-images are all focal points.

A third major objective is to inform, involve and coordinate all significant others who help mold the personality of each child into a smooth-working team. Common understandings, interests, and points of view are sought. Thus, interaction between groups and among group members is vital and effective communication is a constant concern.

Specific Activities

The specific activities which have been carried on in the DCG Project fall into the following categories:

1. Counseling

   A. Individual counseling: students have been encouraged to seek understanding of themselves through individual conferences. They have been helped to examine themselves and to broaden individual perception. At any one time counselors will be seeing ten to twenty students on an individual basis regarding academic achievement and personal or social problems.

   B. Group counseling: selected groups of children have been organized and worked with in scheduled conferences. Counseling has focused on common problems, perceptions of self and others, reality testing related to school progress, development of social skills, examination of vocational aspiration and interests, and examination of attitudes and values. At any one time counselors will be working with two to four small groups of four to eight students.

II. Dissemination of information

   A. Individual classes: consultants have worked with each individual class and classroom teacher in the school to effect a process whereby childrens' individual understanding of educational and occupational opportunities are broadened. Filmstrips, and movies, charts, posters, etc. are obtained and the counselor will help the teacher in use of materials with classes.

   B. School activities: consultants have attempted to stimulate exploration of the educational-occupational world as well as the self world through all such activities as assemblies, etc. The end of these activities has not been to have individuals make premature vocational choices, but to emphasize the importance of future and career on self-development, e.g., The Elementary School Employment Service helps students become acquainted with work rules.

III. Broadening of perceptions

A. Field trips: In each school, field trips are made to over 50 cooperating industries wherein students have been helped to gain more knowledge of occupations and requirements. Further, they are helped to talk with, interact with, and observe workers, thus giving them the opportunity to meet with and identify with a more varied range of workers than those with whom they ordinarily came in contact. In each school over forty field trips are taken yearly.

B. Speakers: speakers from various professional, technical, white-collar and skilled areas were brought to the school at appropriate times to allow students to have close contact with them, and in general, to find out first-hand about the world of work. Speakers also serve as role models and thus give students opportunities for personal-occupational identification. An average of thirty speakers are brought into each school annually.

IV. Work with parents

A. Informational: consultants have organized and worked with parent groups to help inform them of educational and vocational training opportunities and ways and means to take advantage of these. Parents are taken on trips and speakers are brought in to small meetings.

V. Work with community

Consultants and community aides have fashioned close liaison with community agencies and neighborhood organizations to help coordinate school and community efforts and services. A comprehensive, unified approach to helping school children has been sought.

VI. Consultation Services

Guidance consultants have served as resource persons for students, school staff, parents, community and industry. University consultants served the school staff, including guidance consultants, and parent groups. Authorities in speciality areas have been invited to address the Project Staff and the DCG Committee at monthly meetings.

VII. Articulation

Many activities have occurred during the school year which has articulation, or"the smooth joining of parts, processes, and forces," as their primary purpose. Examples of these included:

A. Between-School orientation activities.

B. Participation of guidance consultants in principals' cabinet meetings.

C. Periodical meetings of project staff members with a liaison committee composed of representatives from business and industry in the Detroit area.

Evaluation

An additional important aspect of the project has been to evaluate the results of activities. Consequently, a control region was selected so as to confine results. Control schools were selected to match the experimental schools as closely as possible.

Students from both experimental and control schools were tested with the Guidance Surveys, a series of complementary questionnaires designed to ascertain students' perceptions of level of occupational aspiration. In addition, items concerning future plans, perception of environment, attitudes and values were included.

Summary of the Results

(A much more complete description of the project is available from
Wayne State University library.)

The results indicate considerable progress in regard to affecting student perceptions of behavior. The results indicate:

1. The level of aspiration of students in experimental schools did increase significantly more than of students in control schools.
2. Students in experimental schools did show more growth in regard to occupational knowledge and planning than students in control schools.
3. The students in experimental schools did seem to re-examine their value structure significantly more than students in control schools.
4. Students in experimental schools did show a more acceptable attitude towards counselors at the end of the project's first year of operation than did students in control schools.
5. Students in experimental schools have perceived a greater need for professional help.

In accordance with students' desire to gain information about occupations and educational opportunities, the results indicate that when a developmental approach is utilized, they perceive this information as being more available and accessible to them. They feel they were not only encouraged to utilize this information but were also given help in becoming familiar with employment opportunities.

Other research has demonstrated that students in the experimental schools have achieved higher vocational maturity ratings (using both the Crites and Vriend scales) and have exhibited more successful "coping behavior" (after Gribbons and Lhnes).

Changes in attitudes, however, are not of great importance unless they result in changes in behavior. In this regard, evidence indicates that (1) drop-out rate has decreased, (2) number of graduates going on for all types of further education has increased, (3) number of individuals with employment at graduation has increased, (4) number of graduates who were still in school and jobs eight months following graduation was significantly higher than those of control school graduates.

The results seem to indicate that the concept of guidance as an educational change agent is a viable one if a program and series of activities designed to achieve certain clearly stated objectives is effected.

Implicit in this point of view is the acceptance of the idea that the school counselor can be a guidance specialist who gives information, etc., as well as one who provides meaningful counseling for all students. Too often we seem to compartmentalize students as to the particular "problem" they are facing at any one time and neglect the growth of the whole person. Emphasis should be placed on total development of the individual. In this view, the individual is perceived as facing "problems" at every stage of his development. Following, he needs--and appreciates--professional help at all stages of his progress, in achieving competence, in regard to mastering his vocational developmental tasks. In this regard, career development can be seen as a focal point around which to organize the activities of the full-functioning guidance program.

In essence, the initial results of the project reinforce the position of the counselor not only as a counselor, but also as a guidance services specialist. Although lip service has been paid in the field to counseling as the heart of the guidance program, many counselors have not been secure in counseling with a resultant emphasis upon guidance services. On the other hand, many counselors have eschewed guidance and retreated to the safety of their offices and restricted their activities to counseling with a relatively small number of students. All too many counselors, counselor educators, and administrators have acquiesced in either perception, having thrown up their hands to what they term "reality." As a result, we now see a movement in the direction of making guidance and counseling mutually exclusive. However, with an adequate educational background and supervised counseling experience, as well as a clearly defined role and objectives, the counselor of today should have the competence to be comfortable in counseling as well as organize guidance services that provide a meaningful program for all students. Only in this way can the fully-functioning guidance program fulfill its responsibilities to youth.

We feel strongly that career development is an appropriate focus for school guidance. In a report being presently published, Eli Ginzberg concludes that school guidance has failed to meet its responsibilities in this area. We agree. It is high time that we begin.

In terms of your model building, I would hope you perceive it as an evolving model that constantly will be in need of evaluation and modification. Further, I would hope that you emphasize process in a pragmatic fashion.

I have attempted to describe our program as one that "works" in our urban area. Although many of the principles and procedures mentioned hold true for all locations, we feel they are especially applicable to urban areas. Good luck with your endeavors.

IMPLEMENTING CAREER DEVELOPMENT
PROGRAMS
IN
SENIOR HIGH SCHOOLS

by

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Presented At The
Workshop on the Development of Guidelines For
Planning Career Development Programs K-12
Held at the Imperial House-North, Columbus, Ohio
June 3-8, 1971

IMPLEMENTING CAREER DEVELOPMENT PROGRAMS IN SENIOR HIGH SCHOOL

Introduction

I am pleased to see this conference, pleased to be a part of it, and especially pleased to see us begin to get together on a Regional and National level to discuss and formulate Career Development Guidelines for our youth in the '70's. It's also encouraging to see the present concern and activity in developing and implementing Career Development programs for all school youth rather than the emergency, crash programs for second semester junior and seniors.

I have been given a very short period to present a most complex topic. A topic which couldn't be covered completely if we had the total 4½ days to treat it. I will try to spend these few minutes relating my biases to the materials developed for this conference and offering one possible implementation alternative.

Career development at the elementary and junior high school levels for most students has been treated at the perceptual and conceptual levels of understanding. These young adults now are at the point in their lives at which they begin to generalize about the future in our work society. They now are at the point at which they, with our help, will begin to draw general conclusions about themselves and to apply them to what they know about themselves and the work society. As Frank Wellman would put it, "the student now should develop a behavior pattern typified by consistency, commitment, effectiveness, and autonomy."

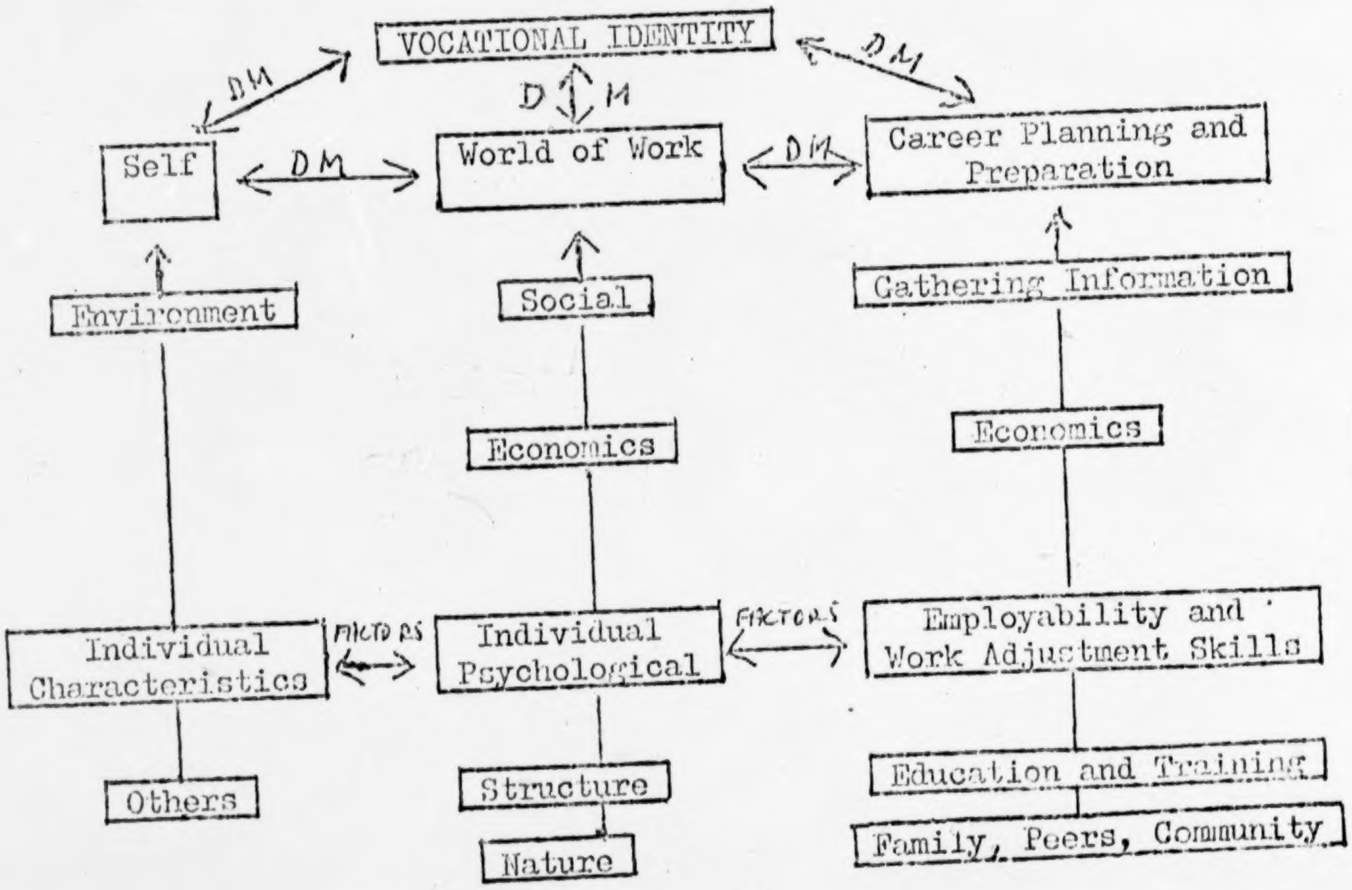
The increasing recognition on the part of high school students and society in general, of the demands of skills, for job skills, for the utilization of job skills at higher and higher levels of compentence is perplexing.

in work. This becomes then a very complex and confusing period in their lives when these concerns are coupled with the increasing recognition of the multiple opportunities for choice. The enormous increase in the number and variety of things that our youth can do with their lives, which is another way of saying problems they have to solve because they have to make choices from among so many more alternatives.

Then what must be done in these last few years of the students' formal education to prepare them for their role in a work role? First of all, the assumption is made that a solid foundation has been established in the elementary and junior high school years to permit the student to operate on the generalization level.

I would like to structure my comments around the objective that the student, when he leaves our schools, will have a positive career identity. This career identity would mean that he had obtained sufficient competencies for entry into his next planned step in his career development plan.

To obtain this objective then, I would like to use the six components offered in the Ohio Career Development Guidelines and structure them as follows:


VOCATIONAL IDENTITY
DM
D M
DM
Self
DM
World of Work
DM
Career Planning and Preparation
Environment
Social
Gathering Information
Economics
Economics
Individual Characteristics
FACTORS
Individual Psychological
FACTORS
Employability and Work Adjustment Skills
Others
Structure
Nature
Education and Training
Family, Peers, Community

it is the process in which the student personalizes all of his ongoing experiences and internalizes them.

How does one then allow for the student or the student allow himself to obtain the sufficient inputs for his career decision. We normally look to the counselor, the vocational teachers and then possibly to outside community resources such as industry and business. I'd suggest that to accomplish the goal of implementing a comprehensive career development program, Grades K-12, then the total school curriculum must be restructured. Education in our public schools must become career-centered. We're not talking, I trust, about the process of career development for only those students who have chosen Vocational Education, but for all. I still hold the ethic that most people want to engage in work in some form during their life. This means the handicapped, the dropout, the college bound, the disadvantaged, the young mother of 15. School boards must ask the basic question: What are we educating our school youth for?

This new education philosophy will then permit us to look at the total community as an educational and training station which will allow us to implement the plan I see formulating here this week.

For the point of discusssion today, let's assume that our schools adopted a "career-centered education program for all" philosophy. What would we do with it?

Let's begin with the self and environment component in the proposed model and suggest ways in which we can bring about the required outcomes.

Self and Environment

At the senior high school level we have planned that all students will have had accumulated and used significant data about themselves and the world of employment and have been trained to relate the two. I suggest that at 10th grade it is becoming too late in the game to depend solely on more test results, exploration,

teacher. The student must now take what he knows about himself and go out into the work environment.

Through courses taken in school, through released time, through planned work experiences and observations, the student must have the opportunity to:

1. Feel work satisfaction through work.
2. See how one's occupational choice is important to life style.
3. Experience the adjustments necessary as he is moved from job to job and employer to employer.
4. Make meaningful his K-10 profile of self that has been completed through real live testing on the job.
5. See the importance of interpersonal relationships on the job as well as respect for other employees and their employers.
6. Experience the value of group cooperation through cooperating with others in a work setting.

It is no doubt apparent at this time that I believe students must at this age level gain experiences outside the sheltered atmosphere of their schools. This means that educators, business, industry, organized labor and others must collaborate far more cloesely than ever before. This means a community commitment to career education, not just those employed as educators.

I strongly feel that we cannot pretend any longer that career pamphlets, sound filmstrips, some test results and even counseling will provide a vehicle sufficient to the task of self-understanding. We must allow the students to test reality and this can best be accomplished at this time on the job.

World of Work

During their lifetime, a large number of youth will not be employed in occupations that are existant today. Therefore, instead of a strong emphasis being placed upon existing occupations, more attention should be devoted to a broad understanding of the work world in terms of:

2. Examining work values.

3. Understanding change and its effect on continual occupational growth.

4. Being familiar with the effects which economic conditions have on the world of work.

5. Being aware of political factors that determine job changes.

6. Realizing the benefits and restrictions of a variety of occupations.

7. Developing an understanding of the existing and changing structure and nature of national, state, and local work force composition.

8. Witnessing workers performing and observing the work conditions.

9. Understanding the societal influences on job choice and performance such as family, peers, and community.

The job that he holds at this time should be seen as possibly only a vehicle to gain an occupational entry skill and related work attitudes and values. This will enable him the flexibility for adjustment required when he enters the work world as a full-time employee. How does one then implement this approach? The first logical avenue would be the exploratory courses provided him in his school, home, and community settings. This experience, if broad enough, will permit the student with the foundation, aptitude, understanding, and purpose to relate the basic concepts of the world of work to real life situations when he is allowed to observe or experience work himself. After a student has gained a broad exploratory experience in a number of occupational clusters of his interest, an in-depth Career Education Contract should be issued to him. This performance contract could be fulfilled throughout the calendar year, both in and out of school. The training component could be completed in-school on a project basis or in the community under school supervision. All too often we depend solely on the united facilities and resources of our school plant in developing a course of action plan with students. We must in the future survey the community and tap the enormous training cadre we have available. Then and only then will we be able to provide sufficient experiences both in education and training for the unique individual needs. This will mean, of course, ur counselors and [illegible] [illegible], September through May, or Monday through Friday. I don't believe that we can implement a comprehensive Career Development Program using only certified educators, traditional school period days and the one-third of the hours for TRAINING in the day as we now tend to do.

Through this close association with workers in the field during the period that the student is fulfilling his education and training phase of his Career Development Contract he will firsthand be able to:

a. Study intensely a wide variety of occupations through his employers' assistance

b. Become familiar with the common language used in his occupational field

c. Understand how specific job tasks fit together to form a salable product or service

d. Generalize what job tasks he can perform best and what shortcomings he may have discovered

e. Understand the economic principles of consumer, producer, and income earner

It will be important that all of the partners in the student contract, such as his teachers, parents, counselors, and employer be on hand to share in some of his experiences. In this way, through counseling, these important life experiences can be brought into perspective for the student involved as related to the decisions he will make in his career development.

CAREER PLANNING AND PREPARATION
(Education and Training)

At this point in a student's life he should already have been trained in the methods of career research procedures. With the aid of the counselors and others he should be assisted in the use of this research skill in his new school setting. More specific education and training data should be made available and skills developed so as to assimilate it correctly.

To accomplish this task all students should have numerous opportunities to talk personally to Union representatives, post-secondary private and public educational and training [illegible] Employment Service counselors and community personnel managers. Through this expanded counseling team the student will then better be prepared to plan his senior high school program or contract because he will know the requirements and competencies needed for employment or further education and training.

It is my feeling that the more knowledge the student obtains early in his school career the greater sense of control he will have over his environment, thus school could be a positive experience.

Finally, as a component of his educational and training contract, he will need to demonstrate to the school (contractor) that he has a knowledge and/or competency in the following areas:

A. Education and training programs available in his interest area.

B. The local Employment Service agency and the services it offers.

C. Job requirements, Labor Laws, Union rules and regulations.

D. Other manpower training programs available in the community and state.

E. Know where to apply for further education and training programs in the community and state.

F. Entry level job and higher education skills.

The other major element of the career planning and preparation component is the EMPLOYMENT AND WORK ADJUSTMENT SKILLS. From the first step the student takes in his Career Development Contracts negotiations interviews, the basic employability skills should be taught. He is actually being interviewed for work (positive connotation) when he plans his senior high school contract. He has to be made aware of the importance of his personal attitudes and habits, expectations of others such as teachers, future employer and fellow employees. He should also be made aware of his expectations of others in his Contract. These expectations will be specifically identified in his contractual agreement.

During the course of fulfilling his 3-year Contract he needs appropriate job searching techniques, interview techniques, and experience in behavior modification, if necessary, for successful job performance and maintenance. These skills cannot be obtained only in the school settings. An appropriate number of job interviews and employer-employee experiences must be provided then by the school before the student can fulfill his Contract successfully.

Attached to this paper are very rough drafts of how I perceive this senior high Contract and staffing to operate (see Attachment # 1). This concept, as you can imagine, will call for a massive restructuring and thinking at the senior high school level. I see it involving many more counselors or career education contractors who will have as their role a coordinator's function between student, school staff, community, and parents. It will call for a school with learning stations on every corner. The traditional school building will still be vitally important but only one option for the student rather than the only one.

I would hope that as the educator becomes a familiar face in industry, business, and the homes, he will be harder to identify as the teacher. For with the community involvement in the education of the young adult, we will be looked upon as members of a consulting team for the student without labels on our back indicating where our pay check originates.

In closing, I, in part, reject formulating a Career Development Program as we are to do here on paper unless we are willing to take the necessary next steps to develop the settings necessary for its implementation. I accepted this writing task here today and in our own state for the last 15 months with the understanding that this obligates me to provide the leadership and resources to demonstrate the concept in a local school.

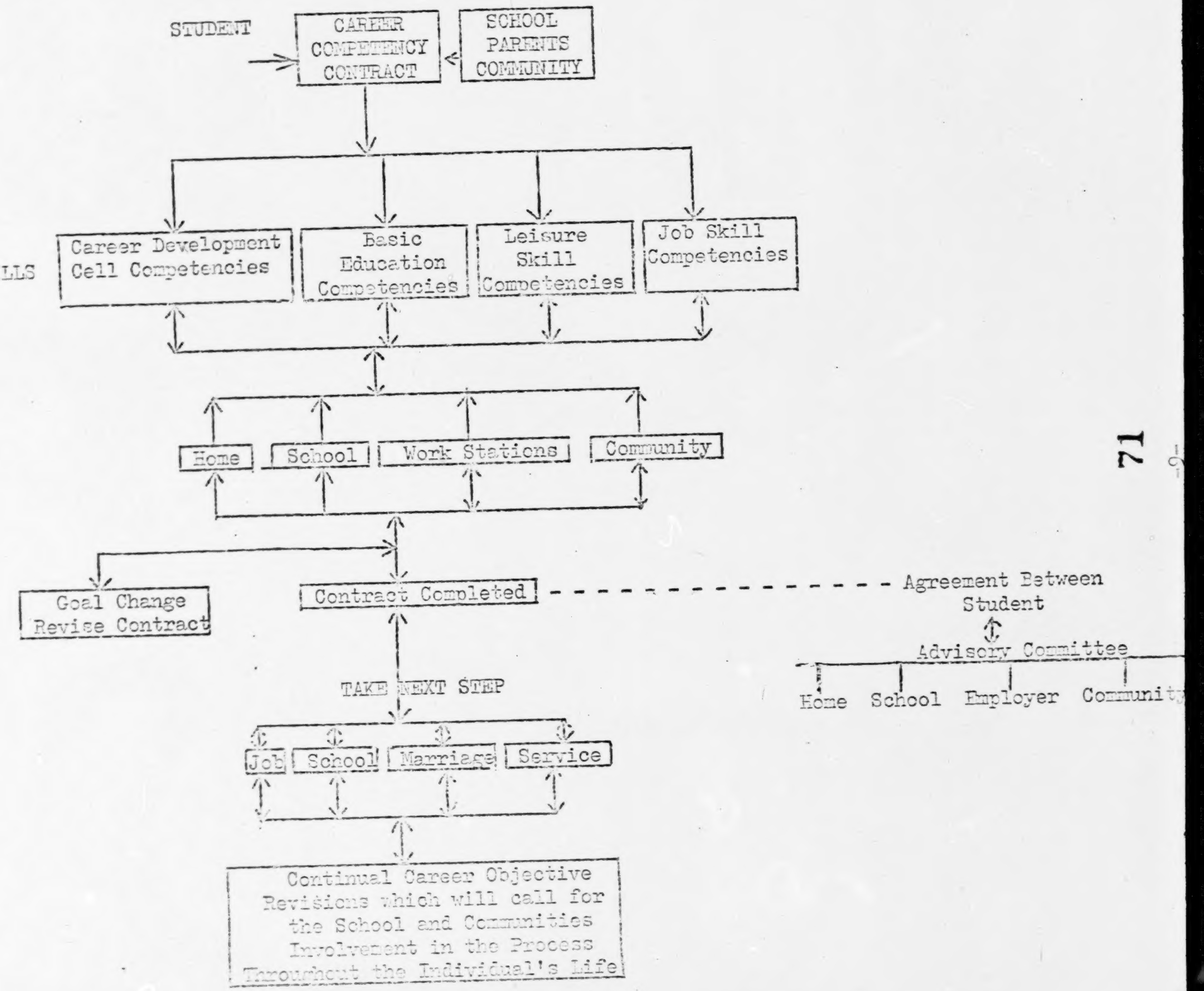
HND:ekb
June 7, 1971

Attachment # 1

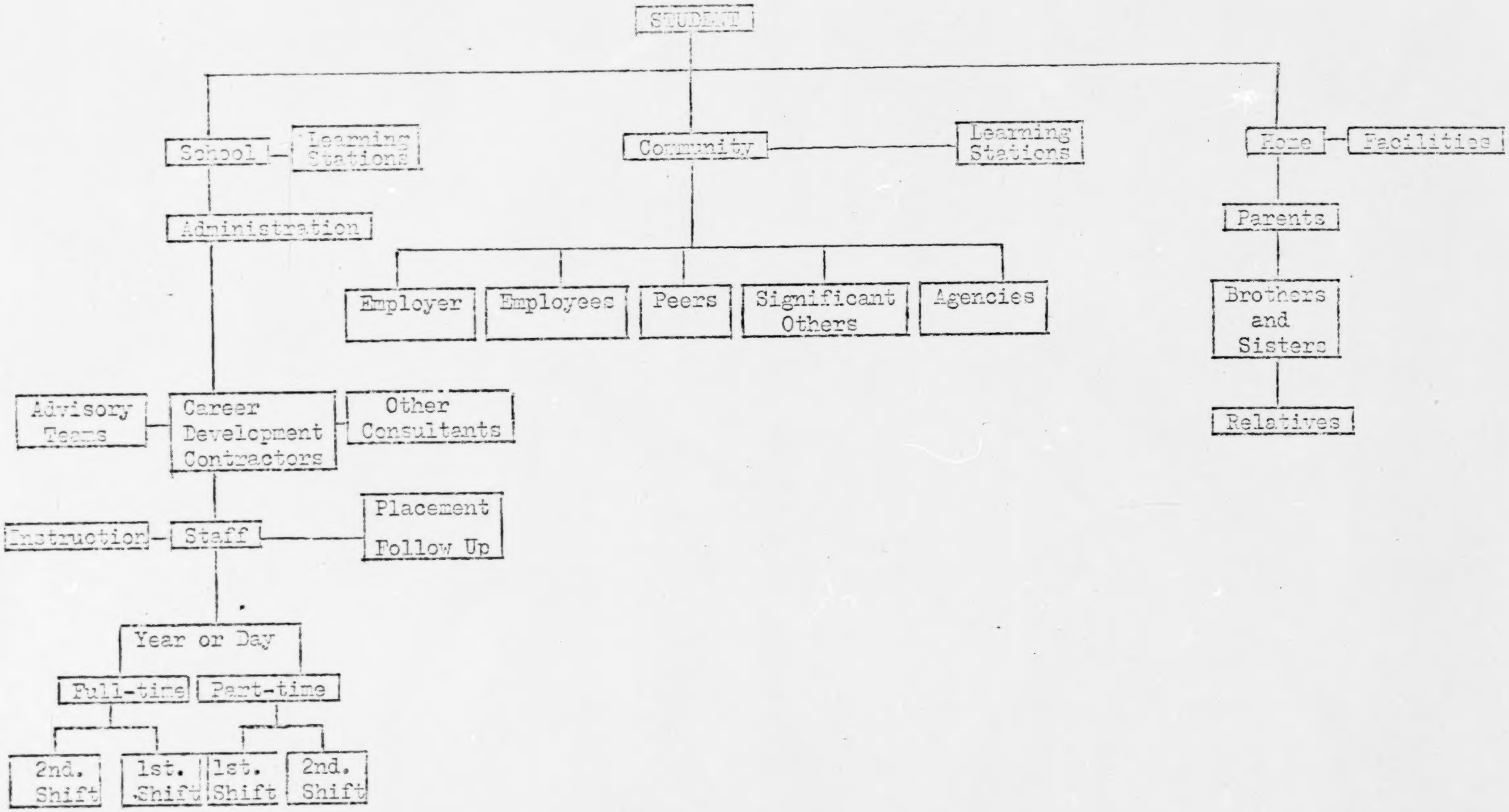
10TH GRADE

mpetency Areas)

ECONOMICS
DECISION MAKING
EMPLOYABILITY
ORK ADJUSTMENT SKILLS
ELF-UNDERSTANDING
ORK WORLD


STUDENT
CAREER COMPETENCY CONTRACT
SCHOOL PARENTS COMMUNITY
Career Development Cell Competencies
Basic Education Competencies
Leisure Skill Competencies
Job Skill Competencies
Home
School
Work Stations
Community
Goal Change Revise Contract
Contract Completed
Agreement Between Student
Advisory Committee
Home
School
Employer
Communit
TAKE NEXT STEP
Job
School
Marriage
Service
Continual Career Objective Revisions which will call for the School and Communities Involvement in the Process Throughout the Individual's Life

GRADES 10-12
CAREER EDUCATION
STAFFING


STUDENT
School
Learning Stations
Community
Learning Stations
Home
Facilities
Administration
Employer
Employees
Peers
Significant Others
Agencies
Parents
Brothers and Sisters
Relatives
Advisory Teams
Career Development Contractors
Other Consultants
Instruction
Staff
Placement
Follow Up
Year or Day
Full-time
Part-time
2nd. Shift
1st. Shift
1st. Shift
2nd. Shift

CAREER GUIDANCE METHODS

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This paper was prepared for the "Workshop in Developing Guidelines for Planning Career Development Programs K-12 in Ohio" held in Columbus, Ohio, June 3-8, 1971.

CAREER GUIDANCE METHODS

A Framework for the Selection of Career Guidance Methods

A career guidance method is a procedure or technique which is used by one individual, i.e. teacher or counselor, to facilitate the effective vocational development of another individual. The first major consideration in selecting methods is the specific guidance objective which will be met through the application of the method. The development of such objectives is the basic work of this project. The objectives for each of the six components for each of the three grade levels is necessary for the selection of methods and provides a basic framework for this selection.

Another important factor related to the selection of methods is the nature of the population. Two basic types of considerations are needed when describing student populations: (1) the age or developmental level of the student group; and (2) special characteristics of the student group. Again, prior work in this project has already focused on the characteristics of the client group. It is, however, possible to draw some generalizations about elementary, junior high school and senior high school students as learners which are helpful in selecting appropriate career guidance methods for use with these three groups.

The following generalizations can be made about elementary school students:

1. Children learn new behaviors by imitating the behavior of others in their immediate environment. A major career guidance technique for the elementary level is to bring into the child's world adults who provide new models of behavior.
2. Elementary children are highly motivated by action oriented learning experiences. For this reason, verbally oriented counseling techniques which are used with older populations are not as appropriate for use with children. Such techniques as games, dramatics, role playing and simulation are more motivating and result in greater learning.
3. The cognitive development level of younger children does not permit them to think in abstractions or generalize from one

situation to another. For this reason, career guidance methods must be designed which enable these students to learn through direct experiencing.

4. Elementary students typically have a narrow view of the occupational world, have a stereotypic view of a few occupations and no knowledge of others, and aspire to high level occupations. This indicates that these students need exploratory, broadening experiences which enable them to more accurately understand the occupational world.

Characteristics of junior high school students which influence the selection of methods include:

1. The junior high school experience is seen as a transitional experience which helps students move from the general skill acquisition of the elementary school to the more specific preparation for adult life which occurs in high school. Career guidance experiences should continue to be broadening and exploratory to help students understand the full range of possibilities open to them.
2. Junior high school students are also in a stage of transition from childhood to adolescence which results in rapid change within individual students and considerable variance in the developmental level of individuals within the total group. This means that a variety of methods will be needed to accomodate the range of individual difference.
3. Since junior high school students are just developing abstract, verbal skills, there is still need for concrete, action oriented methods particularly in the lower junior high grades.
4. The junior high age is one characterized by rapid growth and change which results in intense feelings. For this reason career guidance methods should allow for the expression and exploration of these feelings.

Characteristics of high school students which influence the selection of methods include:

1. During the high school years, the individual is confronted with the reality of having to make decisions which will affect the course of his future life. He is experiencing internal,

as well as external, pressures. Career guidance can help the students deal effectively with these pressures.

2. Since verbal and conceptual skills of the high school student are greatly developed, career guidance can proceed along multiple and complex dimensions; it can facilitate exploration, evaluation of opportunities and decision making.
3. Career guidance can help the student bridge the gap between school and work. After high school, at least four major future directions are possible; dropping out, college, post high school training, and work. Guidance can assist in clarifying the advantages and disadvantages of each of these avenues so that effective decisions can be made.

Specific Considerations in Selecting Career Guidance Methods

Once learning objectives have been developed for specific populations, there are some specific considerations which are helpful in the final selection of methods to meet these objectives. A first consideration is the learning potential of the method. The development of educational methods is based on specific learning principles. Each method is effective in facilitating some types of learning. However, not all methods are equally effective for all types of learning with all students. It is important to study the research on the effectiveness of methods in order to select the most appropriate method for any given learning objective.

Secondly, it is important to consider the relative advantages of one method compared to others. Research indicates that often several methods are equally effective in facilitating specific types of learning. This means that when selecting a method, it is not always necessary or possible to select the one most appropriate method. Often it will be possible to find two or more methods which will be equally effective.

An interesting research finding is that often a combination of methods is more effective than any one method used individually. The important consideration here is that the methods be compatible and enhance one another. When designing career guidance procedures, it is important to consider ways in which methods might be combined to increase motivation and learning effectiveness.

Once career guidance objectives have been stated and a limited number of appropriate methods have been identified, other considerations must be used to make a final selection of methods. These include a number of feasibility issues. First, it is important to select a method which can be used by the available staff. This means that, all other factors being equal, a method should be selected either because someone on the existing staff has the expertise needed to use the method or because other resource people are readily available.

In addition to staffing, other resource considerations are important in the selection of a method. Educational methods require specific facilities and equipment which are often quite costly. One possible rule for selecting a method is that, if the facilities are already available and the method is as effective as others, then the method should be selected. For example, if television equipment is available, then this method of disseminating information would be selected over other possibilities. If no appropriate facilities are available, then another principle to follow is that methods which have multiple uses should be selected.

A final consideration in selecting methods is compatibility of the method with the existing program. Change is often quite difficult to initiate and maintain. This is because a change in one part of a program may require subsequent changes in other parts of the program. When selecting a method, it is important to consider the impact of the acceptance of that method on other parts of the career guidance program. In general, it is preferable to select those methods which are most compatible with the existing program either because less change is needed or because those changes which are required have a favorable impact on the program.

Current Career Guidance Methods

The seven basic career guidance methods are: (1) behavioral approaches; (2) computer assisted counseling; (3) educational media; (4) group procedures; (5) information retrieval systems; (6) simulation gaming; and (7) vocationally relevant curricula. In describing these approaches I would like to first, describe the basic method. Secondly, describe sub-categories of the method. Finally, I would like to give an example of a program which is using the approach.

The first approach is *behavioral counseling*. Behavioral counseling utilizes a number of behavioral approaches, employed by the counselor and others, to help change the client's behavior in the direction which the client has established. The two most commonly used behavioral approaches in vocational guidance are: (1) reinforcement; and (2) social modeling.

Reinforcement techniques are based on the premise that, if a behavior is followed by a rewarding response, the probability of its occurring again is increased. Use of this technique requires the selection of specific reinforcers which are effective in producing a specific behavior with a particular client. Some basic considerations which govern the selection of reinforcers are: (1) not all reinforcers have the same meaning to all people; (2) reinforcers can lose their effectiveness with use; and (3) reinforcers must often come from individuals other than counselors. These reinforcement techniques are most effective for strengthening behaviors which are already familiar to the client.

Social modeling involves the use of real or symbolic models which demonstrate the desired behavior. These techniques are effective in learning complex patterns of behavior. The individual learns the behavior by viewing it in another, rather than through direct experience. This approach is one of learning through imitation. The basic types of modeling include the use of live models and the use of symbolic models. Live models are actual people who exhibit the desired behavior. When selecting live models, it is important to consider the characteristics of the models. Some guidelines are: (1) models who the clients perceives as being of high status are effective; (2) models of the same sex as the client are more effective; (3) peers can be effective models; and (4) models who are more similar to the client are more effective.

Symbolic models are models which have been created using recordings, films, video-tapes, etc. These models allow for greater control than live models. They can be developed to be appropriate for specific clients, can be devoid of negative characteristics, and can be used at any time.

The Northern Systems Company's Social Skills Seminar to help disadvantaged job trainees develop successful on-the-job social behaviors is an example of applying behavioral approaches to career guidance. This is a role playing situation in which the trainees observe a prepared sociodrama. The steps in the process include: (1) an initial sociodrama portrays a trainee within a specific situation striving for a personal goal; (2) the trainee behavior is inappropriate and does not lead to goal attainment; (3) the observers visualize themselves in the same situation and experience the role model's lack of success; (4) a group discussion focuses on the behavior of the role model; and (5) another sociodrama is conducted with the role model using appropriate behaviors and obtaining personal goals. (Harrison, 1970)

The next type of career guidance approach which I would like to describe is computer-assisted counseling which is closely related to computer assisted instruction. This process allows for greater individualization of learning because the computer is capable of auditing student responses and presenting the most appropriate materials for that student's particular level of learning. Computer assisted counseling systems include three types: (1) information processing systems; (2) tutorial systems; and (3) dialog systems.

Although all computer systems are based on information processing, there are some systems which serve only this function and do not interface with the students. These systems process information which is then disseminated to the student by the counselor.

Tutorial systems are used by students. They are designed to go beyond information processing, and replace the counselor in performing different tasks. These systems can be compared to the interaction of a student with a tutor. Such systems are designed to provide instruction in predetermined areas, but the mode on instruction is varied according to the needs of the individual student. The primary function of these systems in counseling is to facilitate decision making through the dissemination of relevant information about self and environment. These systems, therefore, perform the simple information gathering and disseminating tasks which are usually performed by a counselor.

Dialog systems are really a goal for the future and only partially exist at present. There would be several characteristics of such a system. First, it would allow the student to speak and would be able to recognize and respond to these spoken comments. Secondly, the system would not require a standardized mode of response from the client, rather it would be able to comprehend various types of responses and would question, clarify and interpret these responses. It would elicit information from the client and utilize it in the interaction. Another characteristic of such a system is that it would be highly personalized and would offer personal decision making and planning assistance to an individual over a considerable period of time. A final characteristic is that it would allow the individual to try out decisions in a simulated situation thus evaluating possible outcomes prior to acting in real life situations. Although these systems will not exist for some time, they do provide a criteria for the development of all systems. The goal of system development should be to have the system as sensitive to individual needs as the current technology allows.

An example of an operating computer system is Project CVIS (Computerized Vocational Information System) which makes use of the computer to assist students in grades 7 through 14 with vocational and educational exploration. The computer stores a large mass of information about occupations, apprenticeships, local job opportunities, technical and specialized school, four-year colleges, community college programs and military opportunities. Furthermore, it stores the records of all the students. Students explore occupational and educational opportunities by means of carefully prepared scripts which relate ability, interest, and school achievement to occupational and educational choice, and which allow flexibility for trying alternative paths. Students communicate with the computer by means of TV-like terminals called cathode ray tubes. The computer sends a message to the students on the screen, and he replies by typing his multiple-choice response on the keyboard of the machine. This process simulates an immediate response conversation. The student may also receive a paper copy of any information he desires by printing it on an adjacent computer-controlled typewriter. Project CVIS now operates at Willowbrook High School, College of DuPage and Naperville Community High School in the Chicago Area (Harris, 1970).

Another career guidance approach is the use of *educational media*. A medium is any device or equipment which is used to transmit information between two people. Media may consist of a single device or may be comprised of a combination of devices. Media become educational media when they are used by one person to influence the learning of another.

Written materials are probably the most commonly used medium. Assuming that the student possesses the necessary prerequisite knowledge, instruction by means of a book is usually a rapid and efficient process. There are some major problems with this medium. First, the user may not be able to use the written materials either because he cannot read or because he is not motivated to do so. Basically, written materials are quite useful for disseminating information but they are not as successful in arousing interest or motivating students.

Audio media include radio and recordings. With these media, the user is not required to be literate. They can be effectively used to stimulate interest. A comparison can be made between these media and the audio-visual media, such as television and films. Audio media have the advantage of being less expensive. They are also equally effective in communicating information unless the information describes manual tasks or deals with concepts which are not familiar to the user.

Audio-visual media include television and films. It has been previously mentioned that the visual aspect of these media is useful if the concepts to be learned are new to the user. There seems to be no difference in the effectiveness of films and television. A choice between the two should depend on such factors as cost and ease of use. Television tends to cost more, but is more flexible because it allows for revisions of the information.

There are several examples of the use of media in career guidance. Bancroft reports the use of video tape to provide information about entry jobs in a number of job clusters, i.e. secretarial, food, retailing, and automotive technology to high school students to communicate information about the job cluster, to encourage them to remain in school and to motivate them to think about job training. Disadvantaged minority groups responded particularly well to these video tapes.

The use of *group procedures* is another career guidance approach. Group procedures encompass a large number of situation in which a leader, for example teacher or counselor, interacts with more than one student.

Group procedures range from large classroom instruction to small group counseling sessions. Three major types of group situations which are commonly used in guidance are: (1) large group instruction; (2) group guidance; and (3) group counseling.

Large group instruction is frequently used in education. If the goal of the group is to communicate information to large groups of students, this method is very appropriate, because to repeat the information over and over again to individuals is time consuming. It is important to realize, however, that large group procedures do not allow for group interaction or for individual group members to clarify the information by questioning the leader.

Group guidance is distinguished from large group instruction in that it involves a small group of students and provides the opportunity for interaction between the group members. Usually group guidance is instructional or informative in nature. In group guidance, responsibility for the group remains with the leader, Vocational decision making requires the consideration of information about self and environment. While large group instruction may be effective for communicating information about the environment, the group guidance situation is more effective for communicating information about self.

It is important to differentiate between *group counseling* and group guidance. Group guidance and group counseling differ in the following ways: (1) group guidance is intended for all students while group counseling is intended for students with temporary problems which require more than information; (2) group guidance is only indirectly concerned with attitudes and behaviors whereas group counseling actively attempts to modify them through effective involvement; and (3) group guidance procedures can be used with quite large groups whereas group counseling procedures can be used only with small groups. Group counseling, then, uses small groups to help students learn about themselves and to help them develop new behaviors and attitudes. These groups focus on the problems of individual group members and on the interaction of the members. It is assumed, however, that the members' problems are normal developmental problems. The counselor plays a less active role than in group guidance.

Hamilton reports a combined approach using group counseling and social modeling. Group counseling sessions were conducted using social models as a stimulus for learning career information seeking and information processing behavior by high school students. Before the program began, students were asked to answer the question, "If you were watching a group of students your age present a panel discussion on some topic, what are the characteristics of the students which would make you want to pay attention to him?" After the characteristics of effective models were identified, four fifteen minute video taped sessions were developed using students as models. These tapes showed a group counseling session in which the students were using effective vocational information seeking and information processing behaviors. Group counseling sessions focused on viewing these tapes, discussing the behaviors which had been seen and practicing these behaviors in the group.

There are several types of *information systems* which are currently being used in career guidance. Three types of information systems being used in career guidance are: (1) educational development and planning systems; (2) locally oriented occupational information systems; and (3) information systems to facilitate vocational decision making.

Educational development and planning systems contain information about students including test scores, grades, personal characteristics, etc. These systems are designed for use by both educational staffs and by students. They provide a basis for: student self appraisal and future planning, parental understanding and cooperation, effective teaching and counseling and need-centered curriculum development. Frequently, these systems are state-wide systems.

Locally oriented occupational information systems are designed to communicate general and local occupational information to students for use in vocational planning and placement. They are often developed by large educational units such as county or state departments of education. Typically, these systems stress information about occupations for which there is high local demand. The following criteria are used for selecting occupations: (1) shortage and heavy demand occupations; (2) occupations for which education is available in the local area; and (3) occupations which are open to high school and two-year college graduates or early school leavers. Such systems are usually designed to develop master information services which can be offered to a number of schools in the same locality.

[illegible] skill in vocational decision making emphasize providing the student with information about self, educational opportunities, and the world of work; and also helping him to develop skills in effective vocational decision making. They are usually computer based, thus allowing not only the retrieval of information but also monitoring of the nature of the student's interaction with the information. In the most sophisticated of these systems, the student's interaction with the computer includes training and assistance in the process of decision making.

Project VIEW (Vital Information for Education and Work) is conducted by the San Diego County Career Information Center and serves a student population of approximately 30,000 students in 30 secondary schools in San Diego County. Career information is produced for all occupations which require less than a baccalaureate degree for which training is available and for which local job opportunities exist. This information, presently covering approximately 200 occupations, is disseminated to the schools participating in the project. The basic dissemination tool is a data processing card containing a microfilm of four pages of information placed into an aperture in the card. The occupational briefs consist of two cards on a given job. One card contains four pages of information applicable statewide while the second card contains three to four pages of local area information. The microfilm aperture cards can be used in standard microfilm readers. The aperture cards are key punched to provide data processing capabilities for filing and retrieving the cards. The VIEW system makes the initial career investigation step easier for students and counselors by providing compact easy-to-read information on jobs, financial aids and colleges in a form that is readily accessible and continually updated.

Simulation gaming is a sixth career guidance approach. It is a teaching device which provides experiences which parallel real life situations and involve the participant in such activities as: (1) seeking and obtaining information; (2) decision making; and (3) acting on feedback received as a result of a decision strategy. Two types of simulation games which have direct relevance for facilitating the vocational development of students are: (1) social interaction games; and (2) individual skill games.

Social simulation games are those games which enable the learner to better understand the nature of the interaction between himself and the environment in which he lives. Through playing these social simulation games, the student has an opportunity to explore the nature of a social environment including: (1) possible roles he and others might play; (2) norms of behavior in that environment; and (3) strategies which enable him to exert control on the environment. An example of the social simulation game is the "Life Career Game." This is a career simulation game which provides students with an opportunity to try out their decision making approaches on a ficticious student in order to assess the consequences of their planning in the school-achievement and vocational development of that student. This game is played by teams of students who plan the life of an imaginary student by making decisions about how he will allocate his time to various activities over an eight year period.

Another type of simulation game is the individual skill game. A logical application of this type of simulation is in the exploration and learning of occupational behaviors. These games provide a simulated situation in which the individual may practice skills and behaviors which directly parallel those required in a real life situation. Usually, these simulation games provide a model of the behavior, allow the individual to practice the behavior and then provide feedback on his performance. The Job Experience Kits, developed by Krumboltz, have been designed to give students the opportunity to solve problems typical of a particular occupation. About twenty occupational kits are now available. Most of these kits are for entry jobs. Some examples are accountant, salesperson, x-ray technician and truckdriver. Each kit has a similar format. After a motivational introduction on the importance of the occupation, the student is presented with a problem and the information he will need to solve it. The problems are representative of those actually faced by the people in the various occupations and are presented in a realistic manner.

A final career guidance approach is the vocationally relevant curriculum. Vocationally relevant curricula can be defined as any curriculum which in some way attempts to relate the nature of the information being learned to either the present or future vocational [illegible] in the schools. Three distinct types of vocationally relevant curricula are: (1) developmental guidance curricula; (2) special guidance curricula; and (3) vocationally related school curricula.

Developmental guidance curricula are being developed which provide planned, coordinated guidance experiences to facilitate the vocational development of children from kindergarten through grade 14. These developmental programs have several shared characteristics. First, they have developed behavioral objectives which are appropriate for various age and grade levels. Secondly, they have developed a series of planned experiences and curriculum materials which are designed to meet these objectives. Finally, they stress cooperation between the guidance staff and teachers, and have developed extensive in-service training programs to facilitate the implementation of the program.

The special vocational guidance curriculum is another type of application of curriculum to the field of vocational guidance. These curricula are not necessarily longitudinal in nature. Rather, they stress the development of special curriculum materials to facilitate the learning of vocationally related behavior. Such applications are often based on the concept that decision making and career planning are essential skills which are needed for vocational development. These curricula are comprised of specially designed and tested curriculum materials which are intended to help students learn these skills and behaviors.

Another application of curriculum to career guidance is the vocationally relevant school curriculum. Here the stress is on helping students see the relationship between the basic school curriculum and future occupational experience. The premise is that teacher's can play a vital role in making all learning relate to the real life experiences of the student. Through the general school curriculum, students can learn: (1) which competencies are needed for success in specific occupational fields; and (2) which personal preferences they have for various occupational possibilities.

An example of the vocationally relevant curriculum is SUTOE (Self Understanding Through Occupational Exploration) which has been developed by the Oregon State Department of Education. This is a one year course designed to assist ninth graders with educational and

and career planning. It aims at enabling students to gain knowledge and understanding of possible future goals and job opportunities, to develop social skills in applying for work via application and job interviews, to gain understanding of employers' viewpoints and requirements, to broaden knowledge of the general economic structure as related to labor force needs, to understand the importance of opportunities offered through high school and post-high school training programs, and to assess his own strengths and weaknesses. The course, individually tailored, includes evaluation of goals via investigation, idea exchanges in groups, role playing, interviewing, letter writing, reporting, visitations, speakers, films, appropriate research exercises and testing. (Oregon State Department of Education, 1968)

Appropriateness of Methods for Specific Objectives

The following four charts attempt to specify the appropriateness of various types of methods for specific career guidance objectives at various grade levels. The charts list: (1) the types of methods; (2) the six guidance components; and (3) the number of the specific objectives (as per original draft of objectives) which might be facilitated through use of the method. Examples of specific applications of these methods to meet the objectives have not been given. However, in some, but not all cases, such examples do exist. Three major reference aids for identifying examples of the methods to meet specific goals are: (1) a search of the ERIC system; (2) Career Guidance Practices in Schools and Community (Hansen, 1970); and (3) the soon to be published Career Guidance Handbook (University of Michigan - Ohio State University). I would be willing to help identify and provide bibliographic information for publications which describe these specific applications.

ELEMENTARY LEVEL K-3

	I	II	III	IV	V	VI
Reinforcement	3		[illegible]		1,2	1
Social Modeling	1	1	1,2			
Computer Assisted Counseling						
Written Materials						
Audio Visual Materials	8,9	1,4,5		1,2, 3,4		
Large Group Instruction	8,9	2		1,2 3,4		
Group Guidance		4,5			1,2,3	1,2,3
Local Occupational Information Systems						
Social Simulation	6 10 11	3			1,2,3	1,2,3
Individual Skill Games	5	1				
Developmental Guidance Curriculum	1,8,9	2,3,4 5	1		1,2,3 4	1,2,3
Special Guidance Curriculum	3,8,9		1	1,2 3,4		
Vocationally Related Curriculum					4	
Work Experience Programs						
Volunteer Work Experience		6		3,4		1
Individual Counseling						
Group Counseling	7		3			

ELEMENTARY LEVEL 4-6

	I	II	III	IV	V	VI
Reinforcement	4	8			2	
Social Modeling		2,3,6	1		4	
Computer Assisted Counseling			3,5		1	1,3
Written Materials			2	1	1	
Audio Visual Materials			2	1	1	
Large Group Instruction	6		2	1		5
Group Guidance	2,3	1,3,8	1,5		4	1,2
Local Occupational Information Systems			1,3		1	1,3
Social Simulation	2,3,7 8	5		1		1,2
Individual Skill Games	7	2			1,3	
Developmental Guidance Curriculum	1,6,9 10	1,2,3 8	1,4		1	
Special Guidance Curriculum	1	1,2,3 8	1	1		1,3,5
Vocationally Related Curriculum			4	1		
Work Experience Programs						
Volunteer Work Experience		4		1	3	
Individual Counseling	4		5		2	2,4,5
Group Counseling	8				2,5	4,5

JUNIOR HIGH LEVEL

	I	II	III	IV	V	VI
Reinforcement	7					
Social Modeling	2	8			2,3	
Computer Assisted Counseling		1,4,7 11	1,2,5			1,3,7
Written Materials		1,2,3 7	1,2,6	1,5,7 8	2,3	
Audio Visual Materials		1,2,3 7		1,5,7 8	2,3,9	
Large Group Instruction		2,3,7 9	6	1,5,7 8		
Group Guidance	4,9	4,5	1,2,3 5,6			1
Local Occupational Information Systems		4,3,11	1,2,3		1,2	1,3,7
Social Simulation	7	6		2,3	5,6	5
Individual Skill Games		2,5		5	7	
Developmental Guidance Curriculum	1,3,5	2,3,7 12				
Special Guidance Curriculum	1			1,2,4 5,6,7 8		1,3,5 6,7
Vocationally Related Curriculum			4			
Work Experience Programs		1				
Volunteer Work Experience		1			7	
Individual Counseling	1,4,6	4	5		8,10	1,2,6
Group Counseling	1,2,4 5,6,8 9				5,8,10	2,6

HIGH SCHOOL LEVEL

	I	II	III	IV	V	VI
Reinforcement	4,6				2	2
Social Modeling	1,5	6	4		3,4,5 7	3
Computer Assisted Counseling	1,3	1,2	1			1,3,4,5 6,7,10
Written Materials		3,4,5 8,9	2	1,2,3 4,5,8	1,5,6	
Audio Visual Materials		3,4,5 8,9	2	1,2,3 4,5	1,5,6	
Large Group Instruction	6			1,2,3 4,5,7 8	1	9
Group Guidance		2,3,8 9	1,4,6		1,2,3	
Local Occupational Information Systems	1	1,6	1,2			1,4,6 9,10
Social Simulation	4,7,8			6		3,5,11
Individual Skill Games			3			
Developmental Guidance Curriculum	1	1				1
Special Guidance Curriculum	1,2,3 5,6	1,2,4 5,7,8 9		1,2,3 4,5,6 8	1	1,5,6 7,10
Vocationally Related Curriculum		6				
Work Experience Programs	5		3			
Volunteer Work Experience	5		3,5			8
Individual Counseling	1,2,3 5	2,3	4,6		2	2,3,5 7,8
Group Counseling	1,2,4 7,8				2,7	3,5,11

INTRODUCTION TO THE ECONOMICS COMPONENT

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In this brief introduction to the Economics component of Ohio's proposed Career Development Program, K-12, I shall sketch the background and rationale for including a study of the economic system in the program, suggest some major guidelines, and identify specific goals to be achieved through the economics component and the overall program.

Economics and the World of Work. Any educational program that includes the term "career" or "occupation" in its title (e.g., career education, career development, occupational education, occupational information, etc.) is obviously concerned with the world of work. And this world is inseparable from the economic world because work -- defined as "human effort devoted to production" -- is part of the economic process. This process involves employing human and non-human resources to produce goods and services intended to meet human needs. However, the world of work takes in more than just economics. One's occupation and employment experience not only serves the two *economic* functions of earning income and helping produce goods and services. Work also helps meet two *non-economic* functions: satisfying certain social and psychological needs of man and contributing to his overall human development.

Work takes place within the context of an economic and social system. Young people need to develop an understanding of the socio-economic context in which they will spend one-third of their waking hours for perhaps 40 years of their life -- in part so they will have the information and broad understanding necessary to make wise career decisions, and in part so they will not feel alienated from this important aspect of their social environment. Powerful forces are at work shaping our lives: technological advance, economic growth, the changing manpower market, changes in economic and social values, urbanization, population increase, industrial innovation, displacement of workers with obsolete skills, politicalization of economic life, new developments in education and training, environmental changes that influence the quality of employment and of life, and others.

One of the functions currently performed by work makes it crucial in the persoanl lives and career planning of every boy and girl: in a market-type economy, the chief source of income is earnings (wages, salaries, other payment for human effort devoted to production). And to qualify for high and secure earnings, a worker must be able to bring two things to the manpower market -- productive ability, and a willingness to apply that ability in a job situation. Without valuable "human capital" embodied in a worker's labor power, and a functional set of attitudes and motivation, success in the world of work is impossible. The point is worth repeating: workers participating in the U.S. labor force during the 1970s, 1980s, and beyond must have something valuable to bring to the manpower market -- labor power that is enriched with substantial investments in human capital (education, health, motivation, mobility, etc.) -- and they must have a functional set of work-related attitudes and values that provides the motivation to put his productive potential into action. Some basic principles of economics can help students understand why the manpower market operates the way that it does -- what determines the number of jobs available in the nation, why it is that particular employers will hire more or fewer workers, what wages are paid, what these wages are worth in real purchasing power, and what the general conditions of employment will be. Based on this understanding they can either "accept" the system, "reject" it, or -- in most cases -- participate in efforts to modify and improve it to better meet the needs of men and women in their capacity as workers so the quality of their lives will be enhanced.

General Considerations. The question arises: How much economic education can and should be included in the Career Development Program? A related question is: What kind of economics should be included? The latter question doesn't imply differences in judgement regar [illegible] as Neoclassical microeconomics, Keynesian macroeconomics, American Institutionalism, Republican economics, Democratic economics, etc. The question to be decided involves the *point of view* that would be most appropriate for approaching a study of the American economy. There are perhaps four strong possibilities. First, the economics component could be approached from the viewpoint of the concepts, principles, information, decision-making skills required by the *consumer*. Secondly, the viewpoint of the *business firm* could be adopted -- the "profit-investment-growth" emphasis. Third, economics could be approached from the viewpoint of what the well-informed *citizen* needs to know in order to assume his responsibilities as a decision maker of local, state, and national economic issues. Finally, the study of economics could be approached from the point of view of the *worker*, or income-earner. A blend of the first and fourth viewpoint, which can be labeled "Personal Economics" is a possibility.

Two relevant criteria for selecting an approach would be the amount of time available in the program for economic education, and a judgement about the most effective learning strategy in terms of the overall objectives of the Career Development Program. If time permitted, I would recommend the Personal Economics approach, in which emphasis is given to both the *earning* of income in a person's capacity as worker, and the *disposition* of income (spending, saving, "personal money management") in the person's capacity as consumer. While some "citizen" economics and "business" economics would be included, the major treatment of these economic roles would properly be left to the social studies and business education curricula.

Within the framework of the Personal Economics approach, students should acquire a working knowledge of the American economy; they should develop basic skills in the use of economic principles, statistics and history; and they should learn and be able to apply the five-step method of reasoning (similar to the procedure included in the Decision-Making component). By focusing attention on these three elements of economic education, students will be able to add new learnings and deeper insights within a [illegible] as they progress through the primary, intermediate, junior high, and senior high school years. Adding depth and breadth to the understanding of the structure of economics, analytical techniques, and a method of reasoning should prove to be a sound educational strategy that fits well with the notion of a K - 12 career development program.

What specifically does this threefold approach to economic literacy entail? To develop a working knowledge of the economy, the student can be aided by exploring the structure of the discipline of economics. To the extent that this structure is clearly perceived and accurately drawn, it represents a useful way of describing how the U.S. economy works. To illustrate: Economics is defined as the study of how society organizes to develop, conserve, and use its human and non-human resources to satisfy wants. What are the forces that interact in the economy to determine the overall level of production, the composition of output, and the distribution of income? Specifically, in today's American economy, what factors determine the level of Gross National Product; the mix of consumer goods, investment goods, and public (government) services?; and the income shares that go to millions of families and individuals that make up American society? One useful answer to this question is that Resources (human resources, capital, and natural resources); Technology (tool-making and tool-using knowledge); and Institutions (established patterns of social behavior, or coordinating mechanisms) all interact to determine the performance of the economy.

Moving to the second dimension of economic literacy -- the techniques of analysis -- what are the principles, statistical measures, and historical insights that can help a student to think more clearly about economic issues and the world of work? One principle is "productivity" -- the basis for employing workers and determining what wage can be paid. An important statistical measure is Gross National Product -- the market value of the total production of goods and services during the year. Other measures are the unemployment rate, the index of consumer prices, employment projection, weekly earnings, and the rate of economic growth. An understanding of these econ[illegible] helps the student to know the facts of economic life. With respect to history, a knowledge of what problems and solutions have been encountered regarding cyclical and structural unemployment, inflation, poverty, and the like can help students to understand the changing nature of our economic system and to see the need for institutional adjustments to meet human needs in the future.

The third dimension of economic literacy is the five-step method in economic reasoning, or problem solving. This method has great potential for aiding in personal decisions concerning educational development, occupational choice, career planning, and consumer financial management. The five steps involve: 1st, Defining the Problem (e.g., What career shall I choose?); 2nd, Identifying Goals (e.g., What do I want from my career in terms of income, personal satisfaction, social recognition, etc.); 3rd, Considering Alternative Measures for Achieving Goals (e.g., formal schooling, on-the-job training, etc.); 4th, Analyzing the Consequences of Alternative Measures (e.g., the costs, benefits, and other effects of enrolling in a post-high school technical institute, etc.); and 5th, Choosing the best solution in light of the stated goals.

These three dimensions of economic literacy and competence can be developed sequentially from the primary grades through senior high school with continuity and practical applications.

A basic consideration to bear continuously in mind in developing the economics component of a career education program is that the outcomes -- understanding, skills, attitudes, and behavior -- should make a significant and observable difference in the students. Economic education, along with the other five components in Ohio's Career Development Program should provide a human development experience that will enhance both the production capability of human resources coming out of the schools and the level of understanding that young people have concerning the world of work and broader socio-economic environment in which they will live.

Major Goals. The goals of the economics component parallel the dimensions of economic literacy and competence identified in the preceding section. Specifically, they are listed below. Students should acquire intellectual understanding, functional attitudes, and behavioral skills with respect to each of the following:

1. How the U.S. economy is organized and how it functions: a mixture of the market mechanism (e.g., circular flow of resource inputs, output, and money payments) and of government decisions; of competition and concentrations of market power (e.g., in business corporations and labor unions).
2. Role of the manpower market in influencing the development of human resources, allocating workers to particular industries and occupations, distributing income to individuals and families, and helping men and women meet certain non-economic needs through employment.
3. Factors that determine the demand for manpower (e.g., the total number of jobs and employment opportunities in particular industries, occupations, geographic areas, etc.) -- total spending by consumers, business, and government; physical productivity of workers; technological and product innovations; sales demand and prices; programs of job creation.
4. Factors that determine the supply of manpower: population size and characteristics; labor force participation: investment in "human capital" such as schooling, health, counseling, upgrade training.
5. Factors that influence the structure and efficiency of the manpower market itself: information on job vacancies, system for placing workers on jobs, equal employment opportunities, mobility of workers, provision for unemployment insurance benefits.
6. Help students see that every economic system must make decisions about the production of goods and services (how much and what to produce)

and about the distribution of [illegible] [illegible] whom to produce) -- but not all nations are organized in the same way to answer their questions. Examples: The U.S. relies to a great extent on individual decision making expressed through markets, the U.S.S.R. engages in comprehensive government planning, the U.K. and Scandinavian countries have adopted a "middle way" with greater government involvement in determining employment, production, and income policies.

7. Features and specific programs included in the rapidly evolving active manpower policy (public and private) including the role of the U.S. Training and Employment Service and the State Employment Security Agencies in helping young people, the disadvantaged and others become employable, obtain and hold jobs, upgrade skills, and secure earnings and satisfaction from work.
8. Meaning and implications of the principle of marginal productivity as an explanation of employment and wages in the private-enterprise sector of our market economy.
9. Importance of total spending in the market -- by consumers, business, and government -- as the major determinant of total employment, production, income, and the general level of prices.
10. The nature of technology and automation, and the causes and effects of technological change -- stimulating productivity and economic growth; placing, replacing, and displacing workers; influencing social values and institutional adjustments.
11. Education and other forms of "human capital" and a source of economic growth and determinants of individual incomes.
12. Encouraging students to perceive their own schooling as a process whereby they and society are investing in their own human resource development -- using productive resources (teachers' services, school facilities, their own time and energy) to accumulate "human capital" in the four of the

basic "CCMG" skills: Communication (English and speech classes), Calculation (math and office skills), Manual dexterity (trade and industrial courses), Group organization and personal relations.

13. Awareness of the variety of jobs available in the American economy; composition of the labor force in terms of occupations, industries, age, sex, race, class of worker, educational attainment, etc.; and employment projections to 1980 and beyond -- including an understanding of how productivity and income growth induce such changes in employment.

The above list of major goals for the economics component is not exhaustive. Phillip Powell, Director of the M. H. Russell Center for Economic Education in Arkansas, has prepared a list of economics lessons from our program, Manpower and Economic Education, that constitutes a core of basic economics appropriate for junior and senior high school students interested in viewing the world of work in the perspective of the socio-economic systems -- and copies of that list are available. The list also suggests other lessons from the Manpower and Economic Education text that might be useful in implementing the other five components of Ohio's Career Development Program.

In closing, let me underscore the case for including economic education in a Career Development Program by quoting from a paper that hopefully will appear sometime soon in the OCCUPATIONAL OUTLOOK QUARTERLY under the title "The Need for World-of-Work Education":

> "To do something, you have to know something. To participate successfully in the economic system as a worker and a wage-earner—and to help adapt and improve the system when necessary—an individual must understand the structure and operation of the system, and its effect on the life of man. It seems to me just as mistaken to turn American youth out into our modern industrial world without instructing them in some fundamentals of its values, institutions, procedures, opportunities, and challenges as it would have been for the fishermen of Gloucester 150 years ago to send their sons to sea with no knowledge of marine weather, fish, boats, bait, tackle and ocean lore. Without an understanding of the marine environment, Gloucester youth would have perished. Without and

understanding of the indust[illegible] in which they must work and live today, young men and women simply can't be expected to function effectively and meaningfully — as workers, and as human beings who feel competence, self-confidence, self-esteem, and a sense of identity and participation."

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